

JOURNAL

OF THE

AMERICAN VETERINARY MEDICAL ASSOCIATION

Convention Number

87th Annual Meeting, Miami Beach, Aug. 21-24, 1950

Message from President Zepp	1
The Miami Beach Session	4
Preliminary Program	13

GENERAL ARTICLES

A Basic Abattoir Project— <i>Harry E. Shepherd</i>	30
Brucellosis as an Occupational Hazard— <i>S. R. Damon, J. H. Scruggs, and E. B. Parker</i>	39

SURGERY AND OBSTETRICS

The Combined Use of Pentobarbital Sodium and Methadone Hydrochloride for Anesthesia in Dogs— <i>Georg Cronheim and Michael Ehrlich</i>	41
Histoplasmosis in a Cat— <i>Resat S. Akün</i>	43
Conjunctival Flap Operation— <i>Aaron I. Stern</i>	44
Surgical Relief of Impaction in the Newborn Foal— <i>John H. Woolsey, Jr.</i>	46
Torn Uterus in a Mare— <i>G. G. Meredith</i>	47

CLINICAL DATA

Nitrofurazone—A Practical Antibacterial Agent for Bovine Mastitis— <i>M. H. Mires</i>	49
Moniezia Infection in a Calf Herd— <i>R. P. Link, Norman D. Levine, A. G. Danks, and E. A. Woelffer</i>	52
Carinamide Studies in Cattle— <i>E. C. McManus, S. F. Scheidy, and E. K. Tillson</i>	54

NUTRITION

Feeding Thyroprotein	57
----------------------------	----

EDITORIAL

Importance of the Registry of Veterinary Pathology	59
<i>Surgery and Obstetrics</i>	41
<i>Clinical Data</i>	48
<i>Nutrition</i>	57
<i>Editorial</i>	59
<i>Current Literature</i>	61
<i>The News</i>	64

AVMA Report, ad page 8; Coming Meetings, ad page 24.

(Contents continued on ad pages 2 and 4)

Volume CXVII

JULY 1950

Number 880

The
Century's



Second

Ten Years

Farewell to the Mortar and Pestle

The mortar and pestle, chest of drawers, shelves of drugs, prescription counter, assorted bottles-labels-corks, and miscellaneous apparatus for making lotions, boluses, ointments, and sundry mixtures were once equipment of the veterinarian as standard as the buggy, harness room, and surgical trappings.

The crude pharmacy of the old school, when faced with the advancement of pathology and therapeutics, generously yielded to the technical refinements and assays of commercial laboratories—their pathologists and chemists—and thus posted a landmark for the annals of veterinary practice.

Besides uplifting the practice of veterinary medicine in the scientific sense, abolishing the old pharmacy during the second decade of the century was, by and large, the most outstanding reform of modern times. It created within the service of supply a strong opponent of unethical practices.

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A. V. M. A. Convention

Miami Beach, Fla.

Journal of the American Veterinary Medical Association

CONTENTS

(Continued from Cover)

THE MIAMI BEACH SESSION

Officers of the AVMA for 1949-1950	2
Executive Board	2
House of Representatives	3
The 1950 Session—Official Call	4
Message from Chairman, Committee on Local Arrangements	5
Chairmen of the Local Committees	6
Committee on Local Arrangements	8
Message from the Chairman of the Committee on Women's Activities	10
Teenagers' Program	10
Baby Sitter Service	10
Women's Activities	11
Message from the President of the Women's Auxiliary	12
Women's Program	12
What to Wear at Miami Beach	12
Daily Program Schedule	13
Meetings of Other Organizations	14
Conference on Public Relations	14
Conference of State Association Secretaries	14
The D.P. Veterinarian Problem	14
National Board of Examiners	15
Representatives of Student Organizations Will Meet in Miami	15
Airport Facilities at Miami	15
Car Storage and Parking at Miami Beach	15
Executive and Legislative Sessions	16
Editors to Meet	16
Apartments in Miami Beach	16

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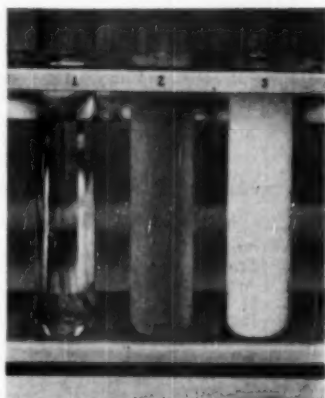
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CONTENTS-Continued

Opening Session	16
Conference on Ethics	16
Section Programs	17
Educational Exhibits	23
Commercial Exhibits at Miami Beach	25

SURGERY AND OBSTETRICS

Estrous Cycle in the Mare	47
Failure of Ovulation	47

CLINICAL DATA

That New Swine Plague	48
Streptomycin in Glanders	48
Terramycin	48
Hyperkeratosis Conference	48
How Sulfonamides Act	51
Sulfone Compounds	51
Iowa Brucellosis Control Committee	53
M Vaccine Studied by National Brucellosis Committee	53
Iron Tonics	56
Soil Moisture in Relation to Cattle Grubs	56

NUTRITION

Vitamin A	58
-----------------	----

CURRENT LITERATURE

ABSTRACTS

Streptomycin in Experimental Brucellosis in Guinea Pigs, 61; Sheep Parasites in Argentina, 61; Diarrhea of Human Infants and Calves, 61; Bovine Hepatic Telangiectasis, 61; Toxicity of Flat Peas, 61; The Virus of Equine Infectious Anemia, 62; Diluents for Bull Semen, 62.

BOOKS AND REPORTS

Foot-and-Mouth Disease Virus Cultivation, 62; Veterinary Obstetrics, 62; Rabies Review, 62; Veterinary Pharmacology, 62.

REVIEWS OF VETERINARY MEDICAL FILMS

A Hen Makes an Egg, 63; Necropsy of an Elephant, 63; Liver Fluke Disease in Sheep, 63.

THE NEWS

Eighty-Seventh Annual Meeting, Transportation to Miami Beach	64
Microfilms of AVMA Journals Available	65
New Veterinary Schools in Georgia and Missouri Approved by Council on Education	65
Executive Board Nominees in Districts V and VII	65
American College of Veterinary Pathologists	66
AVMA Directory Correction	66
U. S. Pharmacopoeial Convention	66
Medical Illustrators' Directory	66
Ralston Purina Fellowship Winners	66
Twenty-Six Constituent Associations Using AVMA Radio Scripts	67
Proposed Amendments to Constitution and Administrative By-Laws	68
Student Chapter Activities	70
Women's Auxiliary	72
Applications	74
Among the States and Provinces	79
Foreign News	89
Births	90
Deaths	90

MISCELLANEOUS

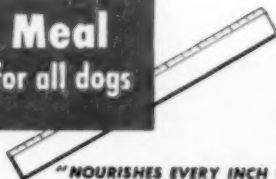
ACTH in Eye Diseases, 38; Prudence Island Selected for Foot-and-Mouth Disease Research, 40.	
And Related Topics	ad page 24



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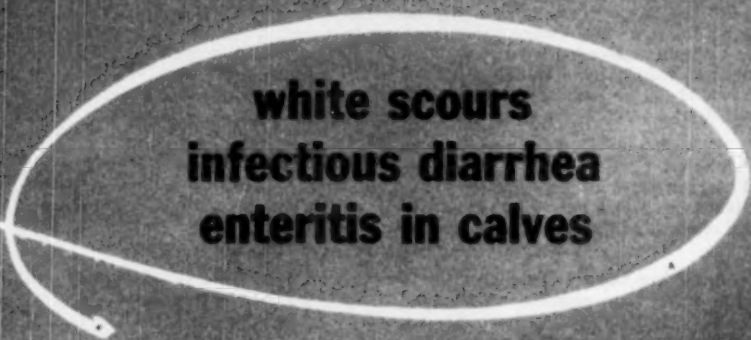
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AVMA ☆ Report

Veterinary Medical Activities

◆ The AVMA Council on Education met in Chicago on May 6 to discuss the reports of the inspections of the several veterinary colleges and to transact the usual business of the Council preparatory to filing its annual report. Members of the Council conferred with Donald G. Anderson, M. D., secretary of the Council on Medical Education and Hospitals, American Medical Association, and Shailer Peterson, D. D. S., secretary of the Council on Dental Education, American Dental Association, on problems of mutual interest in the related professions.

★ ★ ★
◆ President C. P. Zepp, Sr., attended the Wisconsin Postgraduate Conference for Veterinarians at the University of Wisconsin, Madison, on June 20 and 21. He discussed "Obstinate Skin Conditions of the Dog," participated in the small animal clinic, and extended the greetings of the AVMA.

★ ★ ★
◆ Nominating ballots for Executive Board members from the fifth and seventh districts have been counted. Results are contained in an item in the News Section. The election ballots have been mailed and the results will be available in time for the meeting at Miami Beach.

★ ★ ★
◆ A Pan-American Veterinary Congress is planned for May, 1951. Dr. José Santivanez (CORN '44), dean of the college of veterinary medicine at San Marcos University, Lima, Peru, is traveling in the United States to arrange for committee appointments, program participants, and other details of the Congress.

★ ★ ★
◆ The General Committee on Revision, United States Pharmacopoeia, does not provide for a veterinarian or the field of veterinary medicine. A vigorous campaign was waged to have a veterinarian included on the Committee for 1950-1960, but it was unsuccessful (see p. 66, News Section).

★ ★ ★
◆ The program for the Miami Beach Convention appears in this issue of the JOURNAL, and the Program Committee has reason to be proud of the caliber and the number of speakers listed. The emphasis, this year, is on concise reports containing a minimum of historical background.

★ ★ ★
◆ Educational exhibits will be more numerous and more varied than at any recent AVMA Convention. This added interest has been stimulated by the Program Committee, and those exhibits listed in the program will be augmented by demonstrations before and after the sessions of the Section on Small Animals.

★ ★ ★
◆ Slides suitable for use with talks to lay groups are now available for the use of members. The requests for pictures voiced in the JOURNAL and with letters have borne fruit, and we are now prepared to help the AVMA member who wishes to address a civic club, 4-H group, livestock breeders' association, or similar group.

★ ★ ★
◆ The *Directory* for 1950 has evoked favorable comment wherever seen. Members who plan to drive to the Miami Beach Convention, or on a vacation of any type, will find it an excellent traveling companion in helping to locate classmates and colleagues along the route.

★ ★ ★
◆ Hotel reservations should have been filed on the blank which has appeared on ad page 35 of the May and June JOURNALS. If filing of reservation blanks has been delayed, turn right now to ad page 35 and take care of it.

★ ★ ★
◆ Microfilm copies of complete volumes of the *Journal of the American Veterinary Medical Association* and of the *American Journal of Veterinary Research* are now available from University Microfilms, 313 N. First St., Ann Arbor, Mich. Designed primarily to solve the problem of storage space in libraries, the procedure may be used later in other ways.

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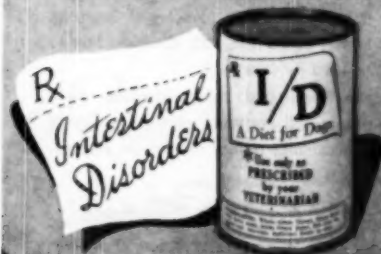
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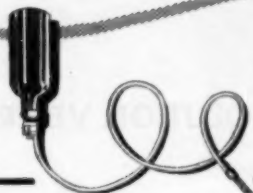
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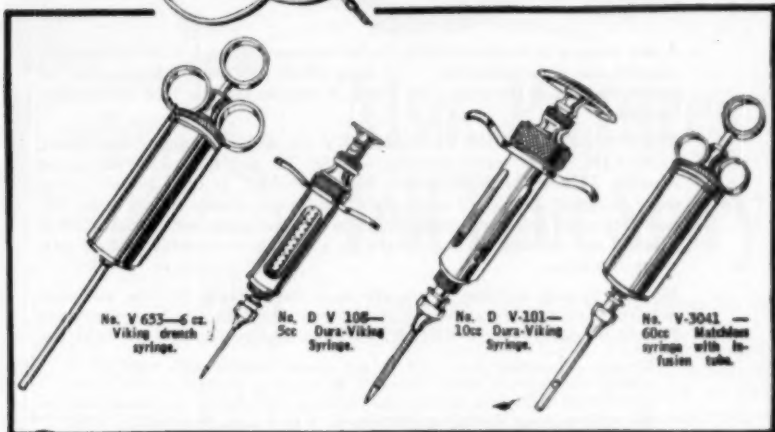
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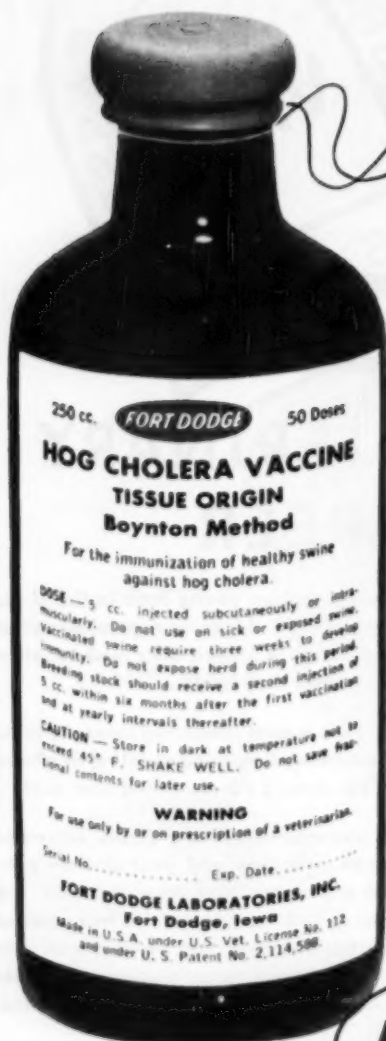
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VOL. CXVII

JULY, 1950

NO. 880

The Miami Beach Meeting—A Message from President Zepp

THE EIGHTY-SEVENTH Annual Meeting of the AVMA will be held in the playland of the East—Florida—on August 21-24, 1950. Over a million persons visit its shores every year for relaxation, among them the President of the United States.

This AVMA meeting at Miami Beach will give you, the busy veterinarian, an opportunity to take advantage of a vacation, see the place which attracts so many people, try your hand at sports—golf, swimming, fishing, water-skiing—and at the same time keep abreast of the developments in your profession. The program is arranged so that two entire afternoons and all evenings will be open for recreation.

A meeting in Miami Beach in August may sound hot; however, the fact is that the temperature rarely rises above 90 degrees in August. The average is 81.2 degrees for the summer months. Plentiful, reasonably priced hotel facilities—air-conditioned if you so select—are available within a few blocks of the auditorium, where all program sessions will be held. The temperature record and the air-conditioning, combined with the sea breezes from all sides, should make Miami Beach feel like the inside of a refrigerator as compared to some former convention cities.

The hospitality of Florida veterinarians is already known. I can assure you, from observations made at a conference with the organizing committee, that they are going to try to improve the present high standard at this meeting. I predict they will set a record for hospitality and entertainment, both for the women and the men, which will be something for future AVMA organizing committees to shoot at.

Although the program is being arranged so that the convention visitors will have time for relaxation, the quality of the program will not be neglected. The number of papers will not be reduced, but each

paper will be streamlined for easy listening. The sectional program committees have lined up top-notch participants for all sections. They will stress the practical application of veterinary medicine. A program of this type will be valuable to you in your every-day work.

The above-mentioned reasons should be enough to influence every veterinarian to make a serious attempt to attend the



President C. P. Zepp, Sr.

AVMA meeting at Miami Beach. However, the most important reason why you should be present at the meeting is so that you may participate in planning the future course of the profession—by giving your advice and support.

During these rapidly changing and disturbing times, we, the veterinary profession, must be alert and carefully steer our course so that we will be able not only to hold, but to enhance the position of respect which we have attained. The decisions which will influence the future of our profession are being made today. Man-to-man discussions of problems by members in the various branches of our profession, from different parts of our country, will aid in arriving at the right decisions. The opinions, derived from free discussion, brought to the attention of your executive officers will greatly aid them in directing your organization.

Come to Miami Beach August 21-24. You will be benefited in health and in knowledge.

C. P. ZEPP, SR., *President.*

Officers of the AVMA for 1949-1950

- C. P. Zepp, Sr., *President*, 136 W. 53rd St., New York 19, N. Y.
 W. M. Coffee, *President-Elect*, La Center, Ky.
 W. F. Irwin, *1st Vice-President*, 3550 S. Peoria St., Tulsa, Okla.
 O. A. Lopez, *2nd Vice-President*, Box 155, Hato Rey, P. R.
 J. M. Veilleux, *3rd Vice-President*, 136 Montmorency St., Quebec, P. Q.
 C. A. Brandly, *4th Vice-President*, Department of Veterinary Science, University of Wisconsin, Madison, Wis.
 A. E. Bott, *5th Vice-President*, 6 Wilson Rd., Country Club Pl., Belleville, Ill.
 J. G. Hardenbergh, *Executive Secretary*, 600 S. Michigan Ave., Chicago 5, Ill.
 R. C. Klussendorf, *Assistant Executive Secretary*, 600 S. Michigan Ave., Chicago 5, Ill.
 W. A. Young, *Treasurer*, 157 W. Grand Ave., Chicago 10, Ill.

Executive Board

- W. G. Brock, *Chairman*, 110 Exposition Ave., Dallas 1, Texas (1951).
 A. L. MacNabb, *1st District*, Ontario Veterinary College, Guelph, Ont. (1952).
 S. F. Scheidy, *2nd District*, 943 Turner Ave., Drexel Hill, Pa. (1953).

- O. Norling-Christensen, *3rd District*, 730 Hibbard Rd., Wilmette, Ill. (1953).
 R. S. Sugg, *4th District*, 408 Magnolia Ave., Auburn, Ala. (1954).



Dr. W. M. Coffee, *President-Elect*

- C. C. Franks, *5th District*, 2330 Amherst St., Des Moines 13, Iowa (1950).
 N. J. Miller, *6th District*, Box 335, Eaton, Colo. (1951).
 E. E. Wegner, *7th District*, College of Veterinary Medicine, State College of Washington, Pullman, Wash. (1950).
 W. G. Brock, *8th District*, *ibid.*
 Edwin Laitinen, *9th District*, 993 N. Main St., West Hartford, Conn. (1952).
 B. J. Killham, *10th District*, School of Veterinary Medicine, Michigan State College, East Lansing, Mich. (1954).
 C. P. Zepp, Sr., *ex officio*, 136 W. 53rd St., New York 19, N. Y.
 W. M. Coffee, *ex officio*, La Center, Ky.
 L. M. Hurt, *ex officio*, 203 Administration Bldg., Union Stock Yards, Los Angeles 11, Calif. (1950).

Miami Beach is famous for
cool summer evenings.

House of Representatives

(As of May 15, 1950)

	Votes	Delegate	Alternate
Alabama	(2)	I. S. McAdory	C. H. Poitevint
Arizona	(1)		
Arkansas	(2)	Fred Thompson	T. D. Hendrickson
California	(5)	Carl E. Wicktor	Floyd Wilcox
Colorado	(2)	G. H. Gilbert	M. N. Riemenschneider
Connecticut	(2)	Neil W. Pieper	Irving R. Vail
Delaware	(1)	C. A. Woodhouse	E. L. Symington
Dist. of Columbia	(1)	C. A. Manthei	W. T. S. Thorp
Florida	(2)	C. Paul Vickers	J. E. Scatterday
Georgia	(3)	C. C. Von Grep	T. J. Jones
Idaho	(2)		
Illinois	(5)	A. G. Misener	A. E. Bott
Indiana	(4)	Homer Carter	L. E. Andres
Iowa	(5)	P. V. Neuzil	F. S. Sharp
Kansas	(3)	J. F. Knappenberger	Ray S. Pyles
Kentucky	(2)	Carl F. Gobert	F. M. Kearns
Louisiana	(2)	W. T. Oglesby	C. P. Hesse
Maine	(1)	A. E. Coombs	J. F. Witter
Maryland	(2)	John D. Gadd	
Massachusetts	(3)	L. A. Paquin	B. S. Killian
Michigan	(4)	A. E. Erickson	C. F. Clark
Minnesota	(4)	H. Evenson	N. A. Roettiger
Mississippi	(2)	R. H. Stewart	E. H. Durr
Missouri	(3)	J. L. Wells	G. F. Jungerman
Montana	(2)	J. W. Safford	E. M. Joneschild
Nebraska	(3)	W. F. Monson	W. I. Nelson
Nevada	(1)	L. R. Vawter	Joe B. Key
New Hampshire	(1)	F. L. Clark	W. R. Haubrich
New Jersey	(3)	J. R. Porteus	
New Mexico	(1)	Tom Evans	Glen S. Bolton
New York	(5)	F. F. Fehr	E. S. Markham
North Carolina	(2)	A. A. Husman	M. M. Leonard
North Dakota	(2)	J. O. Einerson	R. E. Shigley
Ohio	(5)	F. J. Kingma	E. W. Roberts
Oklahoma	(2)	C. H. Fauka	O. E. Robinson
Oregon	(2)	C. F. Haynes	D. M. Sayles
Pennsylvania	(5)	R. C. Snyder	J. Robert Brown
Rhode Island	(1)	J. S. Barber	J. W. Armstrong
South Carolina	(2)	M. R. Blackstock	B. C. McLean
South Dakota	(2)	D. L. Cotton	O. H. Stalheim
Tennessee	(2)	Dennis Coughlin	M. L. Farris
Texas	(3)	E. A. Grist	L. G. Cloud
Utah	(2)	R. W. Gold	
Vermont	(2)		D. A. Walker
Virginia	(2)	I. D. Wilson	O. F. Foley
Washington	(3)	P. G. MacKintosh	H. A. Trippeer
W. Virginia	(1)	S. E. Hershey	L. Dimmerling
Wisconsin	(4)	J. T. Schwab	Roland Anderson
Wyoming	(2)	J. F. Ryff	J. B. Fuller
Army	(2)	J. A. McCallam	George L. Caldwell
NAFV*	(2)	T. H. Applewhite	E. C. Cannon
Canal Zone	(1)	Robert G. Matheney	
Alberta	(2)		
British Columbia	(2)	E. H. Sproston	F. W. B. Smith
Manitoba	(2)	E. C. Chamberlayne	
Nova Scotia	(2)	R. McG. Archibald	L. P. Rutherford
Ontario	(5)	L. C. Swan	D. J. McLellan
Quebec	(3)	W. E. Swales	L. A. Gendreau
Saskatchewan	(2)		
Puerto Rico	(1)	A. Lopez-Pacheco	Francisco M. Santiago
Cuba	(4)	Mario Stincer	Angel M. Morales

*National Association of Federal Veterinarians.

The 1950 Session – Official Call

The Eighty-Seventh Annual Meeting of the American Veterinary Medical Association will be held at the Municipal Auditorium, Miami Beach, Fla., Aug. 21-24, 1950.

There will be no headquarters hotel as such at Miami Beach, since nearly all convention activities will be centered at the Auditorium. Those who have not sent in requests for accommodations at one of the hotels listed for the past three months in the JOURNAL should do so immediately, since any rooms allotted for the AVMA convention which have not been taken up by August 5 will be turned back.

Executive sessions of the Board of Governors will be held Thursday and Friday, August 17 and 18, at the Delano Hotel. The Executive Board will hold its first session on Friday afternoon, August 18, and an all-day session on Saturday, August 19, at the Delano. The House of Representatives will convene for morning and afternoon sessions on Sunday, August 20, the meeting place to be announced.

The Opening Session of the convention is scheduled for 10 a.m., Monday, August 21, in the Auditorium. Following the formal addresses and presentation of awards, nomination of officers for the ensuing year will take place. This will be the only gen-

eral session of the convention, except for a brief closing session on Thursday afternoon, August 24, for installation of officers and official adjournment.

Section meetings and most of the various group meetings will be held in the Auditorium, also the President's Reception and Dance on Wednesday evening, August 23.

The annual meeting of the Women's Auxiliary and other functions for women will be held in selected hotels and will be announced in the official program.

Registration for the convention will open Sunday morning, August 20, at the Municipal Auditorium. The headquarters of the AVMA, the Committee on Local Arrangements, the press room, and other convention activities will all be located in the Auditorium.

The technical (commercial) and scientific exhibits will be housed at the Municipal Auditorium and will be ready for display at 8:30 a.m., Monday, August 21.

Special attention is called to the two open afternoons on Tuesday and Wednesday, August 22 and 23, for sightseeing, golfing, and the special boat trips which will be one of the outstanding entertainment features.

General Officers of the Local Committee



Drs. M. B. Teigland (left), General Secretary; E. D. Clawson, General Chairman; R. P. Knowles, Vice-General Chairman.

Message from Chairman, Committee on Local Arrangements

On behalf of the veterinarians of Florida, I extend to you a most cordial invitation to attend the Eighty-Seventh Annual Meeting of our Association in Miami Beach in August.

Some of you may wonder what the weather will be in South Florida during August. An inquiry to your local weather bureau will convince you that Miami Beach is cooler, even in August, than many other AVMA convention cities of the past.

This is a natural result of the ocean breezes sweeping up from the Caribbean or down from the North Atlantic. In fact, nowhere on the North American continent is the climate more equable than in South Florida. Of course the days are hot. But where isn't it hot in August? However, the Auditorium and most of the hotels and dining rooms are air-conditioned. The evenings are delightfully cool and wonderful to enjoy.

Your Committee on Local Arrangements is working hard to make available to you many of the wonderful entertainment facilities this great resort city has to offer. Literally millions pay

huge sums to enjoy what you will get for no more than you have spent attending former conventions. Bathing in the ocean and pools, fishing, golf, sight-seeing, and dancing in the open under the rustling palms and the Miami moon to music of old-world orchestras or modern bands will be a treat you will long remember.

The women of Florida have arranged unique and delightful entertainment—water carnivals, pool and beach parties, sight-seeing trips along the intercity canals in comfortable, covered boats—with special entertainment for "teenagers." All of this is being planned for your enjoyment.

Come! Bring the family! by plane, train, boat, or automobile. Over fine highways and through the "Old South," over routes that millions travel winter and summer. Come for the AVMA convention and stay as long as you can. Take the postconvention tour to Havana, where you will enjoy the hospitality of the "Old World"—and all for no more than the usual summer vacation.

E. D. CLAWSON, *Chairman,
Committee on Local Arrangements.*



— Miami Beach News Bureau

A refreshing plunge in the crystal waters of a swimming pool or a pleasant dip in the nearby surf is a matter of choice at Miami Beach, where facilities for both forms are right at hand.



J. H. Yarborough, Entertainment

Chairmen
of the
Local Committees

Eighty-Seventh
Annual Meeting

Miami Beach
Aug. 21-24, 1950



S. C. Wasman, Hotels and Housing
and Public Relations and Publicity



C. E. Dee, Exhibits



Jack O. Knowles, Meeting Rooms and
Equipment



Mrs. J. H. Yarborough, Flowers and
Decorations



C. E. Bild, Reception and Hospitality



D. A. Sanders, Reception and Hospitality

Chairmen
of the
Local Committees

Eighty-Seventh
Annual Meeting

Miami Beach
Aug. 21-24, 1950



John R. Wells, Alumni Dinners



V. L. Bruns, Registration and Information



P. M. Boyd, Jr., Special Entertainment



Harold L. McGee, Transportation



I. C. Frederickson, Outings and
Sightseeing

Committee on Local Arrangements

Eighty-Seventh Annual Meeting

Officers

Dr. E. D. Clawson, *General Chairman*

Dr. Robert P. Knowles, *Vice-General Chairman*

Dr. M. B. Teigland, *General Secretary*

Executive Committee

Dr. E. D. Clawson, *Chairman*

Dr. C. E. Bild

Mrs. C. E. Bild

Dr. V. L. Bruns

Dr. C. E. Dee

Dr. Jack O. Knowles

Dr. Robert P. Knowles

Dr. Harold L. McGee

Dr. D. A. Sanders

Dr. M. B. Teigland

Dr. S. C. Wasman

Dr. J. H. Yarborough

Mrs. J. H. Yarborough

Committees

Registration and Information

Dr. V. L. Bruns, *Chairman*

Dr. A. A. McMurray

Dr. C. A. Palmer

Dr. Jerry L. Ruble

Dr. Leonard E. Swanson

Dr. Glenn VanNess

Dr. J. H. Yoder

Exhibits

Dr. C. E. Dee, *Chairman*

Dr. C. R. Forman

Dr. R. F. Jackson

Dr. L. L. Kelley

Dr. C. K. Newton

Dr. Karl Owens

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Mrs. J. H. Yarborough, *Chairman*

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Mrs. Chas. R. Forman

Mrs. J. L. Johns

Mrs. Peter S. Roy

Mrs. D. A. Sanders

Mrs. John R. Wells

Transportation (Parking, Airports)

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Dr. D. A. Eastman

Dr. Hoyt C. Hall

Dr. J. L. Johns

Dr. Robt. E. Lee

Dr. E. A. Majilton

Dr. J. R. Rousseau

Dr. James P. Young, Jr.

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Dr. G. L. Lewallen

Dr. Ralph W. Porter

Dr. Arnold Silverberg

Dr. J. B. Watson, Jr.

Dr. James O. Whidden

Golf Tournament

Dr. J. R. Simione, *Chairman*

Reception and Hospitality

Dr. C. E. Bild, *Co-Chairman*

Dr. D. A. Sanders, *Co-Chairman*

Dr. James A. Acree

Dr. Emory T. Adams

Dr. B. Gibbs Ashley

Dr. Clifford W. Baker

Dr. Benjamin T. Balthaser

Dr. E. G. Batte

Dr. H. J. Boyer

Dr. Cadwallader Brock

Dr. C. C. Brock

Dr. Theo. W. Brown

Dr. J. E. Bryant

Dr. Clair L. Butler

Dr. C. L. Campbell, Jr.

Dr. D. L. Campbell

Dr. W. W. Cunningham

Dr. C. S. Davis

Dr. John Dickson

Dr. D. A. Eastman

Dr. A. P. Edgerly

Dr. H. H. Fairbank

Dr. J. G. Fish

Dr. Dean S. Folse

Dr. Jose G. Garcia

Dr. Peter Garside

Dr. S. C. Gilles

Dr. D. W. Griffin

Dr. W. C. Haire

Dr. F. C. Harris

Dr. Clifton L. Hart

Dr. Wm. P. Haymen, Jr.

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Dr. James W. Madill

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Dr. J. J. Metz

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Dr. John D. Mosley

Dr. Florence A. Muckel

Major J. R. Nettles, Jr.

Dr. H. C. Nichols

Dr. Charles L. Nowlin

Dr. Hubert A. Nowlin

Dr. Norton A. Orr

Meeting Rooms and Equipment

Dr. J. O. Knowles, *Chairman*

Dr. H. V. Bice

Dr. D. Y. Kirkpatrick

Dr. Albert D. Knowles, Jr.

Dr. Francis Southard

Hotels and Housing

Dr. S. C. Wasman, *Chairman*

The Committee on Outings and Sightseeing will have complete information at the Convention on ocean fishing boats, the inland waterway trips, and other sightseeing attractions.

Entertainment

Dr. J. H. Yarborough, *Chairman*

Dr. R. W. Applegate
 Dr. T. H. Applewhite
 Dr. M. R. Avery, Jr.
 Dr. Carey Carlton
 Dr. J. S. DeRing
 Dr. M. W. Emmel
 Dr. A. R. Matthews
 Dr. Roy Morgan

Special Entertainment

Dr. P. M. Boyd, Jr., *Chairman*
 Dr. C. L. Campbell, Jr.
 Dr. G. H. Clanton
 Dr. J. Aubrey Davis
 Dr. A. J. DeFosset
 Dr. James H. DeGroodt

Dr. R. E. Krauss

Dr. Donald W. Whaley

Outings and Sightseeing

Dr. I. C. Frederickson, *Chairman*

Dr. Chas. Dibbell
 Dr. LeRoy F. Fisher
 Dr. W. W. Matthews
 Dr. Chas. B. Plumber
 Dr. Alfred L. Stafford
 Dr. J. N. Thomas

Alumni Dinners

Dr. John R. Wells, *Chairman*
 Dr. G. E. Pace
 Dr. Grace Pearce
 Dr. L. E. Porter
 Dr. H. V. Porter

Dr. S. V. Ramsey

Dr. R. C. Reisinger

Dr. Peter S. Roy

Dr. Fay F. Russell

Dr. J. E. Scatterday

Dr. Major Schofield

Dr. L. A. Scribner

Dr. John R. Scully

Dr. Arthur L. Shealy

Dr. James B. Shotton

Dr. Charles F. Simpson

Dr. W. F. Stoudenmire

Dr. J. J. Vara

Dr. C. P. Vickers

Dr. George R. Waldeck

Dr. B. Lamar Watson

Dr. Coy L. Williams

Dr. H. W. Willis

Dr. Joe M. Witten

The Committee on Local Arrangements, Miami Beach Convention



First row (seated, left to right)—Mrs. Robert P. Knowles, Women's Activities; Mrs. Jack O. Knowles, Women's Activities; Mrs. J. H. Yarborough, Flowers and Decorations; Mrs. C. E. Bild, Women's Activities.

Second row (left to right)—Dr. P. M. Boyd, Jr., Special Entertainment; Dr. E. D. Clawson, General Chairman; Dr. J. H. Yarborough, Entertainment; Dr. John R. Wells, Alumni Dinners; Dr. C. E. Dee, Exhibits; Dr. Jack O. Knowles, Meeting Rooms and Equipment; Dr. H. L. McGee, Transportation; Dr. S. C. Wasman, Hotels and Housing, and Public Relations and Publicity; Dr. Robert P. Knowles, Vice-General Chairman; Dr. C. E. Bild, Reception and Hospitality; Dr. I. C. Frederickson, Outing and Sightseeing; Dr. M. B. Teigland, General Secretary.

Absent when picture was taken: Dr. V. L. Bruns, Registration and Information; Dr. D. A. Sanders, Reception and Hospitality; Dr. J. R. Simone, Golf Tournament.

Message from the Chairman of the Committee on Women's Activities

The women of Florida look forward with real pleasure to your visit to Miami Beach. This city, famous as a year-round vacation resort, offers diversified recreational facilities for almost every woman, no matter what her individual preferences may be. Swimming is a popular pastime. Many of our hotels have private pools and, for those who prefer, there are almost 8 miles of beaches and ocean swimming.

While no golf tournament for the women has been scheduled, some may wish to play a round



Mrs. C. E. Bild, Chairman
Women's Activities

or two of golf. The greens fees at the two municipally-owned golf courses will be complimentary to convention delegates by the City of Miami Beach. If desired, clubs may be rented for a fee of \$1.

The committee feels that the men want to have fun too, so they are invited to the Aqua Fiesta, a four-star performance, to be held in the Roney Plaza Hotel Gardens on Monday evening, August 21. We know that it will be a rare treat to everyone to see world-famous Pete Des Jardins and his troop perform for you. After the show, there will be dancing under the "Miami moon."

Then, there is that unusual way of sightseeing by boat. This trip takes you through the area's 30-odd miles of picturesque inland waterways, where one may view waterfront homes, the names of whose owners read like a "who's who" in America.

The Women's Committee will have an information desk in the Auditorium, and we will be glad to help you plan your free time or direct you to various places of interest. A women's lounge will also be provided in this new, air-conditioned building.

Since you must come almost the entire length

of Florida to reach Miami Beach, we suggest that you plan to spend a few days exploring some of the unusual places, such as the wonderland of Silver Springs, the unique Marineland, or perhaps a side trip to the Keys and a return trip through the citrus groves of central Florida.

We are anticipating a good time with you.

S/MRS. C. E. BILD, *Chairman,*
Committee on Women's Activities.

Teenagers' Program

Monday, August 21

3:00 p.m. Teenage Party.
8:00 p.m. Agua Fiesta and Dance.

Tuesday, August 22

4:00 p.m. Inland Waterway Sightseeing Trip.

Wednesday, August 23

9:30 a.m. Cabana Party.
3:00 p.m. Inland Waterway Sightseeing Trip.
(For those who did not take this trip Tuesday afternoon).

Teenagers, Attention!

Teenagers will particularly enjoy the resort atmosphere of Miami Beach. Don't forget your swimming suits, because the majority of the hotels have private pools and you will really enjoy the "cabana life." Ocean swimming is less than a five minute walk from any hotel on the beach.

On Monday afternoon, August 21, from 3 to 5 o'clock, we are planning a party for you all. We have two professional rhumba instructors engaged to help you have fun at this party, which will be held in the air-conditioned Fala Room of the Delano Hotel.

On Tuesday or Wednesday afternoon, you will like the two-hour sightseeing trip by boat through the inland waterways.

We hope that you won't try too many of the antics that you will see at the Agua Fiesta on Monday night, when you come to the cabana party on Wednesday morning, at the Delano Hotel. Swimming starts at 9:30 and luncheon will be served at 12:00 o'clock noon.

Come to Miami Beach and Have Fun!

S/MRS. C. E. BILD, *Chairman,*
Committee on Women's Activities.

Baby Sitter Service

For those families with young children attending the convention, the committee arranged for a reliable "baby sitter service." It is the "Older Women's Cooperative League" and is indorsed by the Miami Beach Chamber of Commerce. The fee is 75 cents per hour, plus transportation, with a minimum fee of \$2. For an additional guest child, there is an additional fee of 25 cents per hour.

Women's Activities

Mrs. C. E. Bild, *Chairman**Co-Vice Chairmen*

Mrs. Jack O. Knowles

Mrs. Robert P. Knowles

Reception

Mrs. C. E. Dee, *Co-Chairman*Mrs. I. C. Fredrickson,
Co-Chairman

Mrs. C. H. Albritton

Mrs. R. W. Applegate

Mrs. Gibbs Ashley

Mrs. M. R. Avery

Mrs. L. S. Backus

Mrs. E. G. Batte

Mrs. H. W. Bolser

Mrs. T. W. Brown

Mrs. T. P. Culpepper

Mrs. Chas. S. Davis

Mrs. J. Aubrey Davis

Mrs. A. P. Edgerly

Mrs. M. W. Emmel

Mrs. LaRue Garrett

Mrs. M. G. Grey

Mrs. H. I. Gore

Mrs. F. G. Harris

Mrs. J. W. Henagan

Mrs. A. J. Holt

Mrs. J. V. Knapp

Mrs. G. W. Lewallen

Mrs. K. R. Lewis

Mrs. W. M. Lynn

Mrs. A. J. McCreary

Mrs. T. J. Mahaffy

Mrs. Bernard Marks

Mrs. J. J. Metz

Mrs. Roy Morgan

Mrs. S. S. Morgan

Mrs. C. K. Newton

Mrs. C. A. Palmer

Mrs. Chas. B. Plummer

Mrs. G. M. Pollard

Mrs. L. E. Porter

Mrs. R. W. Porter

Mrs. E. L. Reed

Mrs. H. H. Rothe

Mrs. J. L. Ruble

Mrs. G. B. Sharpe

Mrs. A. L. Shealy

Mrs. H. H. Spencer

Mrs. L. E. Swanson

Mrs. Glenn VanNess

Mrs. Joe Vara

Mrs. J. M. Witten

Information

Mrs. Stanley C. Wasman, *Chairman*Mrs. C. B. Dibbell, *Co-Chairman*

Mrs. T. H. Applewhite

Mrs. Donald Jensen

Mrs. Lawrence Kelley

Mrs. D. Y. Kirkpatrick

Mrs. A. D. Knowles, Jr.

Mrs. A. T. Knowles

Mrs. J. J. McCarthy

Mrs. H. E. Miller

Mrs. S. V. Ramsey

Mrs. Arnold Silverberg

Mrs. N. E. Southard

Luncheon

Mrs. Harry V. Bice, Jr., *Chairman*

Mrs. Peter Burnette

Mrs. Karl R. Owens

Registration

Mrs. D. W. Whaley, *Chairman*Mrs. Van Bruns, *Co-Chairman*

Mrs. J. E. Anderson

Mrs. B. F. Balthaser

Mrs. S. T. Johnson

Mrs. G. Linwood Lewallen

Mrs. H. L. McGee

Mrs. J. R. Rousseau

Mrs. C. F. Simpson

Mrs. Paul Vickers

Mrs. J. B. Watson, Jr.

Mrs. A. E. Whaley

Mrs. H. W. Willis

Teenagers

Mrs. L. T. Fisher, *Chairman*Mrs. E. A. Majilton, *Co-Chairman*

Mrs. Chas. T. Bush

Mrs. John W. DeMilly, Jr.

Mrs. J. G. Fish

Tea and Reception

Mrs. M. B. Teigland, *Chairman*

Mrs. R. F. Jackson

Mrs. James E. Scatterday

Mrs. John Simone

Mrs. Jack Knowles, Co-Vice Chairman
Women's ActivitiesMrs. Robert Knowles, Co-Vice Chairman
Women's Activities

Message from the President of the Women's Auxiliary

On behalf of the Women's Auxiliary to the AVMA, which will be in session during the Eighty-Seventh Annual Meeting of the AVMA in Miami Beach, Aug. 21-24, 1950, I extend to the wives of veterinarians and veterinary students a cordial invitation to take part in the program planned for the women.

During the week of the convention, the women will enjoy many interesting activities planned for their pleasure and comfort by Mrs. C. E. Bild of Miami, third vice-president of the Women's Auxiliary, and her local committee.



Mrs. V. H. Miller, President, Women's Auxiliary

On Monday morning, August 21, they are invited to join their husbands at the Opening Session of the AVMA Annual Meeting.

Of special interest during the past three years has been the meeting of the House of Representatives of the Women's Auxiliary, where ideas were exchanged. This year, the meeting of this body will receive more attention than during the past, for our new constitution provides that the House of Representatives is the legislative body of our Auxiliary, and it will act on all business except the election of officers. All affiliated state, regional, and sectional auxiliaries will be represented this year by their delegates, and all interested women are invited to attend this session, which convenes at 10 a.m. on Tuesday, August 22. The luncheon and annual meeting of the Auxiliary will be held at 11 a.m. on Wednesday.

A worthwhile business session, social functions, and many points of interest to be visited will make this thirty-third annual meeting of the Women's Auxiliary an outstanding one.

s/MRS. V. H. MILLER, President.

Women's Program

Sunday, August 20

- 10:00 a.m. Meeting of Budget Committee, Women's Auxiliary.
- 1:00 p.m. Meeting of Executive Board, Women's Auxiliary.
- Registration.
- Evening Open.

Monday, August 21

- 8:30 a.m. Registration.
- 9:00 a.m. View Commercial and Educational Exhibits.
- 10:00 a.m. Attend Opening Session of the AVMA.
- 3:00 p.m. Women's Tea and Reception.
- 8:00 p.m. Agua Fiesta and Dance.

Tuesday, August 22

- 9:30 a.m. Meeting of House of Representatives, Women's Auxiliary.
- All interested women are invited.
- 4:00 p.m. Inland Waterway Sightseeing Trip.
- Evening Open.

Wednesday, August 23

- 11:00 a.m. Luncheon and Annual Meeting of Women's Auxiliary.
- 3:00 p.m. Inland Waterway Sightseeing Trip (for those who did not take this trip Tuesday afternoon).
- 6:30 p.m. Alumni Dinners.
- 9:00 p.m. President's Reception and Dance.

Thursday, August 24

- 9:30 a.m. Meeting of Executive Board, Women's Auxiliary (new officers).
- This day left open for individual preferences.

What to Wear at Miami Beach

Men.—The main meeting place, the Auditorium, will be air-conditioned, as will most other places where group sessions are held, but this probably will not alter the decision of most men to wear lightweight summer clothing for their entire stay in Miami Beach. Cool slacks and sport shirts are desirable and popular attire throughout the day, regardless of the occasion. Sports combinations and tropical business suits may be worn comfortably in the evening, although many residents and visitors prefer slacks and sport shirts, even when dining out.

Women.—A wardrobe selected for a mid-summer vacation in the northern part of the country will be equally correct for wear in Miami Beach. Informal clothes are in order,—tailored and dressy cottons and sheers. A summer coat should be included, for the ocean breezes are often a bit chilly in the evening.

Daily Program Schedule

Meeting rooms will be indicated in the official program.

The following time table, including only the principal events, is, of necessity, somewhat tentative and subject to minor revisions.

Thursday, August 17

- 1:00 p.m. Committee on Budget.
- 7:30 p.m. Board of Governors (first session).

Friday, August 18

- 9:00 a.m. Board of Governors (second session).
- 1:30 p.m. Executive Board (first session).
- 6:30 p.m. Executive Board Dinner.
- 7:30 p.m. Executive Board (second session).

Saturday, August 19

- 9:00 a.m. Executive Board (third session).
- 12:30 p.m. Executive Board Luncheon.
- 1:30 p.m. Executive Board (fourth session).

Sunday, August 20

- 9:30 a.m. House of Representatives (first session).
- 10:00 a.m. Registration.
- 10:00 a.m. Setting-up of Commercial and Educational Exhibits.
- 10:00 a.m. Women's Auxiliary Budget Committee.
- 1:00 p.m. Conference of Zoo Veterinarians.
- 1:00 p.m. Women's Auxiliary Executive Board.
- 2:00 p.m. House of Representatives (second session).
- 4:00 p.m. Committee on Local Arrangements.
- 6:30 p.m. Veterinary Exhibitors Association.

Monday, August 21

- 8:30 a.m. Registration.
- 8:30 a.m. Official Opening of Exhibits.
- 10:00 a.m. Opening Session.
- 12:30 p.m. Borden Award Luncheon.
- 1:30 p.m. Section Meetings: General Practice; Public Health; Research (first sessions).
- 3:00 p.m. Women's Tea and Reception.
- 4:00 p.m. Conference of Physiologists and Pharmacologists.
- 3:00 p.m. Teenagers' Mixer.
- 7:00 p.m. American Board of Veterinary Public Health.
- 7:00 p.m. Conference of State Association Secretaries.
- 7:00 p.m. AVMA Special Committee on Ethics.
- 8:00 p.m. Agua Fiesta and Dance.

Tuesday, August 22

- 8:30 a.m. Registration Continued.
- 8:30 a.m. Exhibits open.
- 9:00 a.m. Section Meetings: General Practice; Public Health; Research (second sessions).
- 9:30 a.m. Women's Auxiliary House of Representatives.

- 1:30 p.m. American Animal Hospital Association Luncheon.
- 1:30 p.m. Phi Zeta Luncheon.
- 1:30 p.m. Conference of Editors.
- 1:30 p.m. Conference of National Board of Veterinary Examiners.
- 2:00 p.m. Association of Deans of the American Colleges of Veterinary Medicine.
- 2:00 p.m. Conference of National Association of Federal Veterinarians.
- 2:00 p.m. Conference of National Association of Chief Livestock Sanitary Officials.
- 2:00 p.m. Conference of Chairmen and Workers — State Ethics Committees.
- 2:30 p.m. Golf Tournament.
- 4:00 p.m. Inland Waterway Sightseeing Trip.
- 6:00 p.m. International Congress Tour Dinner.
- 6:00 p.m. Reception for Public Health Veterinarians.
- 6:30 p.m. Meeting of Student Chapter Representatives.
- Evening Open.

Wednesday, August 23

- 8:30 a.m. Registration Continued.
- 8:30 a.m. Exhibits open.
- 9:00 a.m. Section Meetings: Small Animals; Surgery and Obstetrics; Poultry (first sessions).
- 11:00 a.m. Luncheon and Annual Meeting of Women's Auxiliary.
- 1:30 p.m. Omega Tau Sigma Luncheon.
- 1:30 p.m. Conference of American College of Veterinary Pathologists.
- 1:30 p.m. Meeting of Veterinary Anatomists.
- 1:30 p.m. Meeting of Small Animal Clinicians.
- 2:00 p.m. Conference of Public Relations Chairmen.
- 2:00 p.m. Conference of Extension Veterinarians.
- 3:00 p.m. Inland Waterway Sightseeing Trip. (For those who did not take this trip Tuesday afternoon.)
- 6:30 p.m. Alumni Dinners.
- 9:00 p.m. President's Reception.

Thursday, August 24

- 8:30 a.m. Exhibits open.
- 9:00 a.m. Section Meetings: Small Animals; Surgery and Obstetrics; Poultry (second sessions).
- 9:30 a.m. Women's Auxiliary Executive Board (new officers).
- 1:00 p.m. Closing Session, followed by Installation of Officers.
- Adjournment.
- 2:00 p.m. Conference on D. P. Veterinarians.
- 6:00 p.m. Executive Board Dinner (final session).

Meetings of Other Organizations

Meeting rooms will be indicated in the official program.

Sunday, August 20

- 10:00 a.m. Women's Auxiliary Budget Committee.
- 1:00 p.m. Zoo Veterinarians.
- 1:00 p.m. Women's Auxiliary Executive Board.
- 6:30 p.m. Veterinary Exhibitors Association.

Monday, August 21

- 12:30 p.m. Borden Award Luncheon.
- 3:00 p.m. Women's Tea and Reception.
- 4:00 p.m. Conference of Physiologists and Pharmacologists.
- 7:00 p.m. American Board of Veterinary Public Health.
- 7:00 p.m. Conference of State Association Secretaries.
- 7:00 p.m. AVMA Special Committee on Ethics.

Tuesday, August 22

- 9:30 a.m. Women's Auxiliary House of Representatives.
- 1:30 p.m. American Animal Hospital Association Luncheon.
- 1:30 p.m. Phi Zeta Luncheon.
- 1:30 p.m. Conference of Editors.
- 1:30 p.m. Conference of National Board of Veterinary Examiners.
- 2:00 p.m. Association of Deans of the American Colleges of Veterinary Medicine.
- 2:00 p.m. Conference of National Association of Federal Veterinarians.
- 2:00 p.m. Conference of National Association of Chief Livestock Sanitary Officials.
- 2:00 p.m. Conference of Chairmen and Workers — State Ethics Committees.
- 6:00 p.m. International Congress Tour Dinner.
- 6:00 p.m. Reception for Public Health Veterinarians.
- 6:30 p.m. Meeting of Student Chapter Representatives.

Wednesday, August 23

- 11:00 a.m. Luncheon and Annual Meeting of Women's Auxiliary.
- 1:30 p.m. Conference of American College of Veterinary Pathologists.
- 1:30 p.m. Omega Tau Sigma Luncheon.
- 1:30 p.m. Meeting of Veterinary Anatomists.
- 1:30 p.m. Meeting of Small Animal Clinicians.
- 2:00 p.m. Conference of Public Relations Chairmen.
- 2:00 p.m. Conference of Extension Veterinarians.
- 6:30 p.m. Alumni Dinners.

Thursday, August 24

- 9:30 a.m. Women's Auxiliary Executive Board (new officers).
- 2:00 p.m. Conference on D.P. Veterinarians.

Conference on Public Relations

The second annual AVMA conference on public relations will be held on Wednesday, August 23, from 2 to 4 p.m. in the Card Room of the Sagamore Hotel, Miami Beach. The first such conference, held at Detroit last year, was so successful that all agreed it should be an annual convention feature.

Invitations have gone out to constituent associations, educational institutions, the extension service, and other agencies to send representatives to the conference which will be under the chairmanship of Dr. A. H. Quin. Headlining the program will be short, informal talks by Dr. W. A. Young (Chicago) on "The Veterinarian's Role in Television," Dr. C. D. Lowe (Washington, D. C.) on "The Extension Veterinarian and Public Relations," Dr. C. D. Van Houweling (AVMA staff) on "Illustrations of AVMA Public Relations Techniques," and Mr. L. R. Fairall (public relations counsel) on "Planning Effective Publicity for State and Local Associations." Another special feature will be the showing of the Ohio State Veterinary Medical Association's film on public relations, prepared by Dr. A. G. Madden, Jr., of Madeira, Ohio.

Conference of State Association Secretaries

The first conference for secretaries of state veterinary medical associations will be held on Monday, August 21, at 7 p.m. in the Hotel Delano in Miami Beach. This conference, during the Eighty-Seventh Annual Meeting of the AVMA, was scheduled after a poll revealed that it was the most acceptable time and place for a meeting of state association secretaries. Although the meeting is primarily for state secretaries, like officers of other constituent associations will be welcome. Subjects for discussion will be submitted by the secretaries, and the AVMA officials will also present several items for consideration. Secretaries who cannot attend this meeting may be represented by another officer of their association.

The D. P. Veterinarian Problem

A conference has been called to discuss the nature of, and to find a solution to, the problem of fair treatment of the veterinarians who have immigrated to the United States as displaced persons, or who wish to do so.

The conference has been scheduled for Thursday, August 24, at 2:00 p.m. at the Municipal Auditorium in Miami Beach. This time was chosen because the subject is important to so many persons who will attend the convention that one or more interested groups would be holding conflicting meetings at any earlier time.

Representatives from the state veterinary medical examining boards and from the educational field are especially urged to attend this conference and participate in the discussion.

National Board of Examiners

The National Board of Veterinary Medical Examiners will hold its organizing meeting at the Municipal Auditorium in Miami Beach on Tuesday, August 22, at 1:30 p.m. In accordance with action taken by the House of Representatives at Detroit, in 1949, members of the Board have been designated as follows by the agencies indicated.

AVMA HOUSE OF REPRESENTATIVES—FIVE PRACTITIONERS

- S. W. Stiles, Portland, Maine
- W. O. Keefer, Springfield, Ohio
- C. W. Bower, Topeka, Kansas
- Otto Stader, Ardmore, Pennsylvania
- F. D. Egan, Farmington, Michigan

VETERINARY COLLEGE FACULTIES—FIVE

- J. H. Milliff, State College, Texas—Anatomy
- H. J. Stafseth, East Lansing, Michigan—Bacteriology
- E. A. Benbrook, Ames, Iowa—Parasitology
- Rue Jensen, Fort Collins, Colorado—Pathology
- H. H. Dukes, Ithaca, New York—Physiology

NATIONAL CONFERENCE OF STATE VETERINARY EXAMINING BOARDS—FIVE

- P. G. MacKintosh, Yakima, Washington
- C. N. Bramer, Evanston, Illinois
- J. D. Gadd, Towson, Maryland
- E. C. Jones, Los Angeles, California
- C. Rife, Atlanta, Georgia

AVMA COUNCIL ON EDUCATION—TWO

- C. C. Hastings, Williamsville, Illinois
- S. W. Haigler, St. Louis, Missouri

AVMA PRESIDENT

- C. P. Zepp, Sr., New York, New York

AVMA EXECUTIVE SECRETARY

- J. G. Hardenbergh, Chicago, Illinois

NATIONAL ASSEMBLY OF CHIEF LIVE-STOCK SANITARY OFFICIALS—ONE

- A. K. Carr, Sacramento, California

RESEARCH WORKERS IN ANIMAL DISEASES IN NORTH AMERICA—ONE

- A. G. Karlson, Rochester, Minnesota

AMERICAN ANIMAL HOSPITAL ASSOCIATION—ONE

- I. W. Goodman, Manhasset, New York

BUREAU OF ANIMAL INDUSTRY, CHIEF

- B. T. Simms, Washington, D. C.

VETERINARY CORPS, U. S. ARMY

- Colonel G. L. Caldwell, Washington, D. C.

VETERINARY DIVISION, U. S. PUBLIC HEALTH SERVICE, CHIEF

- J. H. Steele, Atlanta, Georgia

SELECTED BY THE ABOVE MEMBERS—FIVE

These five members will be selected as soon as possible.

This group of 25 members will select five additional members, organize officially, possibly take steps to incorporate, and will discuss and adopt a constitution and by-laws.

The actions of the National Board will not supersede those of any state board, unless and until such state board votes to accept the results of examinations given by the National Board.

Representatives of Student Organizations Will Meet in Miami

Student representatives and faculty advisers of the student chapters and clubs will hold their third meeting, during the AVMA convention in Miami, on Tuesday, August 22, at 6:30 p.m. in the Fala Room of the Hotel Delano. There will be a dinner for representatives of the student organizations and representatives of the student auxiliaries. Officers of the AVMA and the Women's Auxiliary will also attend the program and the regular business meeting which will be held after the dinner.

Last year, 16 student organizations were represented by students and/or faculty members. A tentative agenda has been distributed to the student organizations and faculty advisers. Additional matters will be presented by the representatives and a profitable exchange of ideas between the delegates from the student organizations and the AVMA is expected.

Airport Facilities at Miami

Those who fly their private planes to the Miami Beach convention should plan to use the Sunny South Airport. The information on this field is as follows:

Traffic pattern, 600 feet; right hand landing to the east; left hand landing to the west; 4,000 ft. runways. No landing fee; \$1.00 per night parking charge; \$2.50 per night for hangar space. The field has gas and maintenance facilities, a restaurant, bus service to all points, and rental car service.

Car Storage and Parking at Miami Beach

Those who go to Miami Beach by automobile can drive directly to their hotels and leave their cars with the hotel doormen who will see that they are taken care of. Parking facilities near the Municipal Auditorium will be available for those who may wish to use their cars during the convention. Announcement of parking privileges will be made in the official program and at the opening session of the convention.

Executive and Legislative Sessions

Committee on Budget.—Thursday, August 17, 1:00 p.m.

Board of Governors.—First session, Thursday, August 17, 7:30 p.m. Second session, Friday, August 18, 9:00 a.m.

Executive Board.—First session, Friday, August 18, 1:30 p.m. Second session, August 18, 7:30 p.m. Third session, Saturday, August 19, 9:00 a.m. Fourth session, Saturday, August 19, 1:30 p.m. Final session, Thursday, August 24, dinner 6:00 p.m.

House of Representatives.—First session, Sunday, August 20, 9:30 a.m. Second session, Sunday, August 20, 2:00 p.m. If a third session is required, it will be scheduled by the House and presiding officers.

Election and Installation of Officers.—Nominations for the election of officers of the Association will take place at the end of the Opening Session on Monday morning, August 21. If a ballot election is required on account of there being more than one nomination for the respective offices, polls will be set up in the AVMA executive secretary's office in the auditorium on Tuesday, August 22. The officers to be elected at Miami Beach are: president-elect, five vice-presidents, and treasurer. President-Elect W. M. Coffee, of La Center, Ky., will be installed as president at the Closing Session on Thursday, August 24, along with other officers elected at the annual meeting.

Editors to Meet

Editors of veterinary medical publications—for students and alumni, state associations, serum producers, pharmaceutical manufacturers, commercial journals, and all others interested—are invited to attend a meeting in the Municipal Auditorium at Miami Beach on Tuesday, August 22, at 1:30 p.m.

At a meeting in Detroit, in 1949, a group of 22 editors voted to recommend to the Executive Board of the AVMA that a similar meeting be scheduled each year in connection with the annual convention of the Association. This group also recommended that the JOURNAL of the AVMA devote a column in each issue to editorial problems. Such a series was introduced in the December, 1949, JOURNAL (ad page 22), and a column has appeared in each succeeding issue on the following ad pages: Jan., p. 26; Feb., p. 22; March, p. 18; April, p. 26; May, p. 26; June, p. 18.

The purpose of the meeting is to discuss editorial problems, clarify publication style, and work toward a uniform and improved literature throughout the veterinary medical profession.

Opening Session

Municipal Auditorium — Arena

Monday, August 21, 10:00 a.m.

Music

10:30 a.m.

Call to Order.—President C. P. Zepp, Sr.

Invocation.—The Rev. Mitchell Taylor, Pastor, All Souls' Episcopal Church, Miami Beach.

The National Anthem.

Addresses of Welcome.—The Honorable Harold Turk, Mayor of the City of Miami Beach; and Mr. Tom F. Smith, Director, Miami Beach Convention Bureau.

Response.—Dr. John R. Wells, West Palm Beach, Fla.

Greetings from Women's Auxiliary.—Mrs. V. H. Miller, President, Charleston, W. Va.

Address.—Dr. C. P. Zepp, Sr., President.

Announcements.—Dr. E. D. Clawson, General Chairman, Committee on Local Arrangements.

Presentation of Awards.

By Dr. R. J. Garbutt, Chairman, Special Committee on Humane Act Award:

1950 Humane Act Award.

By Dr. C. P. Zepp, Sr., Chairman *ex officio*, Committee on Awards:

Twelfth International Veterinary Congress Prize.

Borden Award for 1950.

By Dr. W. G. Brock, Chairman, Executive Board:

Gold Key to Incoming President.

Service Scroll to Retiring President.

Nomination of Officers.

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Closing Session

Municipal Auditorium — Arena

Thursday, August 24, 1:00 p.m.

Installation of Officers.

Adjournment.

Conference on Ethics

The AVMA Special Committee on Ethics will meet at Miami Beach, and will also hold a conference for chairmen and workers from the ethics committees of the several state veterinary medical associations. This conference will be held on Tuesday, August 22, at 2:00 p.m. in the Delano Hotel.

Apartments in Miami Beach

Persons interested in apartment facilities in Miami Beach may write to Mr. Arthur Frishman, Miami Beach House Association for information about availability, types, and rates.

Section Programs

Section on Small Animals



C. E. Bild, Miami, Fla., Chairman



M. M. Leonard, Asheville, N. Car., Secretary

Wednesday, August 23, 9:00 a.m.
Municipal Auditorium—Arena

X-Ray, Laboratory, Oxygen, Blood Transfusion Demonstrations.

Sponsored by the South Florida Veterinary Society and Friends.

Opening Remarks by the Chairman.

Report of Secretary.

Panel on Distemper:

L. W. Goodman, Manhasset, N. Y.

P. C. McLain, High Point, N. Car.

J. E. Greene, Auburn, Ala.

T. P. Rowe, Richmond, Va.

H. H. Groth, San Mateo, Calif.

S. W. Haigler, St. Louis, Mo.

Socialistic Trends in Medicine.

E. R. Annis, M.D., Miami, Fla.

Coffee.

Physiologic Basis for Transfusion of Blood.

J. J. Griffiths, M.D., Miami, Fla.

Panel on Clinical Aids or Tricks of the Trade.

F. T. Candlin, Denver, Colo.

C. L. Blakely, Boston, Mass.

C. H. Covault, Ames, Iowa.

G. J. Lawhon, Sr., Hartsville, S. Car.

W. C. Glenney, Ardmore, Pa.

E. C. Jones, Los Angeles, Calif.

1:00 p.m.

Adjournment.

Thursday, August 24, 9:00 a.m.
Municipal Auditorium—Arena

X-Ray, Laboratory, Oxygen, Blood Transfusion Demonstrations.

Sponsored by the South Florida Veterinary Society and Friends.

Nominations for Section Officers.

Panel on Heartworms:

R. F. Jackson, Augustine, Fla.

J. G. Fish, Jacksonville, Fla.

D. Y. Kirkpatrick, Orlando, Fla.

C. B. Dibbell, St. Petersburg, Fla.

K. R. Owens, Gainesville, Fla.

R. F. Minnick, St. Petersburg, Fla.

The Dog Psychologist—What He Is, What He Does, How He Does It, and the Results.

C. E. Harbison, New York, N. Y.

Coffee.

Infectious Diseases of Dogs.

J. A. Baker, Ithaca, N. Y.

Panel on Clinical Aids or Tricks of the Trade.

M. A. Thom, Pasadena, Calif.

E. P. Leonard, Ithaca, N. Y.

H. E. Jensen, Cleveland, Ohio.

H. F. Wilder, Buffalo, N. Y.

D. A. Fastman, Miami, Fla.

J. R. Currey, Washington, D. C.

1:00 p.m.

Adjournment.

Section Programs

Section on Surgery and Obstetrics



E. A. Davis, Columbus, Ga., Chairman



J. F. Hokanson, Auburn, Ala., Secretary

Wednesday, August 23, 9:00 a.m.

Municipal Auditorium—Committee Room 3

Motion Picture—Clinical Cases.

W. J. Gibbons, Auburn, Ala.

Opening Remarks by the Chairman.

Report of Secretary.

Sulfonamide and Antibiotic Therapy in Veterinary Medicine.

E. F. Thomas, Athens, Ga.

Spaying Heifers and Cows.

C. C. Carlton, Arcadia, Fla.

Pregnancy Disease in Ewes.

J. W. Cunkelman, Chicago, Ill.

Pregnancy Diagnosis in Cows.

G. R. Moore, East Lansing, Mich.

Anesthesia of the Bovine.

G. R. Fowler, Ames, Iowa.

The Nerves and Arteries of the Bovine Foot.

R. E. Habel, Ithaca, N. Y.

1:00 p.m.

Adjournment.

Thursday, August 24, 9:00 a.m.

Municipal Auditorium—Committee Room 3

Motion Picture—Rumenotomy in Cattle.

A. B. Christian, Asheville, N. Car.

Nominations for Section Officers.

Umbilical Hernias in the Horse.

D. L. Proctor, Lexington, Ky.

Impaired Fertility in the Beef Cow.

G. T. Easley, Sulphur, Okla.

Dehorning in Cattle.

B. E. Carlisle, Camilla, Ga.

The Metabolic Abnormalities of the Basic Structures of Wobblers.

W. V. Dakin, North Hollywood, Calif.

Panel on Infertility:

Moderator—G. R. Moore, East Lansing, Mich.

A. B. Christian, Asheville, N. Car.

G. T. Easley, Sulphur, Okla.

G. R. Fowler, Ames, Iowa.

W. J. Gibbons, Auburn, Ala.

D. L. Proctor, Lexington, Ky.

1:00 p.m.

Adjournment.

Section Programs

Section on Poultry



C. H. Cunningham, East Lansing, Mich.,
Chairman



C. W. Barber, Athens, Ga., Secretary

Wednesday, August 23, 9:00 a.m.

Municipal Auditorium—Committee Room 2

Motion Picture.

Opening Remarks by the Chairman.

Report of Secretary.

Poultry Diseases, A Clinical Subject at the
Georgia School of Veterinary Medicine.
E. F. Thomas, Athens, Ga.

Poultry Disease Diagnosis in the Laboratory.
C. I. Angstrom, Kingston, N. Y.

Pullorum Disease in the Southeast.
L. C. Heemstra, Beltsville, Md.

Challenging Problems and Opportunities in Poul-
try Disease Research.
E. P. Johnson, Blacksburg, Va.

Radioisotopes in Poultry Research.
C. L. Comar, Ph.D., Oak Ridge, Tenn., and
O. E. Goff, Ph.D., Knoxville, Tenn.

Discussion Period on Session Area.

1:00 p.m.

Adjournment.

Thursday, August 24, 9:00 a.m.

Municipal Auditorium—Committee Room 2

Motion Picture.

Nomination for Section Officers.

The Public Health Aspects of Poultry Diseases.
W. L. Ingalls, Columbus, Ohio.

Laboratory and Field Studies of Newcastle Vac-
cines.

C. R. Davis, I. M. Moulthrop, and R. L. Reagan,
College Park, Md.

Recommended Techniques for the Bacteriologic
Examination of Reactors to Pullorum Disease
Antigen.

W. J. Hall, Beltsville, Md.

Turkey Disease Problems in Texas.

W. A. Boney, Jr., College Station, Texas.

Intestinal Parasitism and Poultry Production in
the South.

A. C. Todd, Ph.D., Lexington, Ky.

Discussion Period on Session Area.

1:00 p.m.

Adjournment.

Section Programs

Section on General Practice



R. F. Jackson, Augustino, Fla., Chairman



J. L. Hopping, Sr., Atlanta, Ga., Secretary

Monday, August 21, 1:30 p.m.
Municipal Auditorium—Arena

- Motion Picture.
- Opening Remarks by the Chairman.
- Report of Secretary.
- Pathologic Conditions Affecting the Equine Foot and Their Treatments.
 C. E. Dee, Hollywood, Fla.
- The Puerperal Cow.
 H. E. Kingman, Sr., Cheyenne, Wyo.
- The Incidence of Anaplasmosis and Related Factors in Veterinary Practice.
 P. L. Piercy, Athens, Ga.
- Internal Parasites of Farm Animals, Their Diagnosis and Control.
 R. D. Turk, College Station, Texas.
- Skin Diseases of Large Animals.
 B. C. McLean, Aiken, S. Car.
- Antihistamines in Large Animals.
 A. H. Quin, Kansas City, Mo.
- 4:30 p.m.
- Adjournment.

Tuesday, August 22, 9:00 a.m.
Municipal Auditorium—Arena

- Motion Picture.
- Nominations for Section Officers.
- Some Practical Techniques of Horse Breeding (Illustrated).
 F. G. Schell, Franklin, Tenn.
- Mineral Supplements and Their Use.
 R. B. Becker, Ph.D., Gainesville, Fla.
- Some Indications for X-Ray and Radium Therapy in Large Animal Practice.
 Myron Thom, Pasadena, Calif.
- Latest Developments on Vitamin B₁₂, APF, and Related Factors.
 T. J. Cunha, Ph.D., Gainesville, Fla.
- Practical Insecticide Toxicology for Veterinarians.
 R. D. Radeleff, Kerrville, Texas.
- Etiology of Ketosis in Cattle.
 J. C. Shaw, B. C. Hatzios, and E. C. Leffel, College Park, Md.
- 1:00 p.m.
- Adjournment.

Section Programs

Section on Research



C. C. Morrill, Urbana, Ill., Chairman



C. A. Manthei, Beltsville, Md., Secretary

Monday, August 21, 1:30 p.m.

Municipal Auditorium—Committee Room 3

BAL, Antidote for Arsenic and Other Metals.
G. T. Edds, Fort Dodge, Iowa.

Opening Remarks by the Chairman.

Report of Secretary.

The Influence of High Salt Intake on the Physiology of Ruminants.

B. P. Cardon, Ph.D., J. C. Nesbitt, and W. J. Pistor, Tucson, Ariz.

Microcoelium Liver Fluke Infection of Sheep and Cattle in New York State.

D. W. Baker, Ithaca, N. Y.

Aureomycin in the Treatment of Experimental Infections of Poultry.

J. E. Prier, Urbana, Ill.

Mammalian Adaptations of Newcastle Disease Virus.

A. L. Brueckner, D.V.M., R. L. Reagan, D. M. Schenck, B.S., H. O. Werner, B.S., and J.W. Hickman, B.S., College Park, Md.

Free Fatty Acids in the Blood of the Normal Parturient Cow, in Milk Fever and in Ketosis.

A. H. Craigie, Jr., and A. C. W. Chung, College Park, Md.

4:30 p.m.

Adjournment.

Tuesday, August 22, 9:00 a.m.

Municipal Auditorium—Committee Room 3

Studies on Repeated Vaccination of Cattle with *Brucella Abortus* Strain 19. II. Results in a Large "Problem" Herd.

D. T. Berman, Lois M. Jones, M.S., and B. A. Beach, Madison, Wis.

Nominations for Section Officers.

Brucella Infection in Bulls and the Spread of Brucellosis in Cattle by Artificial Insemination. I. Intrauterine Injection.

C. A. Manthei, D. E. DeTray, and E. R. Goode, Jr., Beltsville, Md.

The Viability of *Brucella Suis* in Swine Carcasses. L. M. Hutchings, Doris E. Bunnell, M.S., C. R. Donham, and W. W. Bay, Lafayette, Ind.

Impaired Breeding in Cattle — Field Observations and Results of Treatments.

A. H. Frank, Beltsville, Md.

Histologic Changes in Skin of Cattle Due to Intradermic Johnin Reaction.

E. P. Johnson, Blacksburg, Va.

Vaccination Against John's Disease.

A. B. Larsen, Auburn, Ala.

A Complement-Fixation Technique for Foot-and-Mouth Disease and Vesicular Stomatitis.

Fernando Camargo N., E. A. Eichhorn, J. M. Levine, M.D., and A. Tellez Giron, Mexico.

Complement-Fixation Test for Fox Distemper.

M. Savan and C. A. Brandly, Madison, Wis.

1:00 p.m.

Adjournment.

Section Programs

Section on Public Health



L. E. Starr, Atlanta, Ga., Chairman



J. E. Scatterday, Jacksonville, Fla.,

Monday, August 21, 1:30 p.m.

Municipal Auditorium—Committee Room 2

Motion Picture — Results in Complacency with Tuberculosis.

T. B. Clower, Atlanta, Ga.

Opening Remarks by the Chairman.

Report of Secretary.

Veterinary Epidemiology.

B. H. Dean, Piedmont, Calif.

The State Public Health Laboratory and Veterinary Public Health.

A. V. Hardy, M.D., Jacksonville, Fla.

Creeping Eruption in the Southeastern United States.

A. W. Donaldson, J. H. Steele, and J. E. Scatterday, Atlanta, Ga.

Communicable Disease Problems Associated with Florida's Brucellosis and Tuberculosis Programs.

C. L. Campbell, Jr., Tallahassee, Fla.

Panel on Veterinary Public Health:

Moderator—J. H. Steele, Atlanta, Ga.

W. T. Sowder, M.D., Jacksonville, Fla.

J. R. Nettles, Tampa, Fla.

F. A. Clark, Auburn, Ala.

H. J. Keane, Cristobal, Canal Zone.

4:30 p.m.

Adjournment.

Tuesday, August 22, 9:00 a.m.

Municipal Auditorium—Committee Room 2

Motion Picture—Rabies in Georgia.

A. L. Stafford, Atlanta, Ga., and R. B. Phillips, Cordelle, Ga.

Nominations for Section Officers.

Tropical Diseases of Veterinary Public Health Importance.

W. H. Wright, Bethesda, Md.

Salmonellosis in Dogs in Florida.

Mildred M. Galton, M.S., H. B. McElrath, M.S., C. L. Stucker, M.S., and A. V. Hardy, M.D., Jacksonville, Fla.

Municipal Meat Inspection, Community Benefits, and Stabilization of Local Meat Industry.

H. G. Bailey, Savannah, Ga.

Veterinary Public Relations.

L. R. Davenport, Springfield, Ill.

Milk and Milk Inspection.

M. R. Fisher, St. Louis, Mo.

United States Air-Force Veterinary Service.

W. O. Kester, Washington, D. C.

Panel on Rabies:

Moderator — L. E. Starr, Atlanta, Ga.

A. Malaga-Alba, Washington, D. C.

E. S. Tierkel, Montgomery, Ala.

A. L. Stafford, Atlanta, Ga.

K. S. Young, Austin, Texas.

1:00 p.m.

Adjournment.

Educational Exhibits

Alan W. Donaldson
Communicable Disease Center, U. S. P. H. S.

The life cycle of *Ancylostoma braziliense* in the dog, and the manner in which man acquires the infection by contact with contaminated soil, will be shown on a central panel. Side panels will show geographic distribution of reported animal and human cases in Florida and photographs of typical lesions of creeping eruption.

Herman Farley
Veterinary Research Institute, Oklahoma A. & M. College

Color pictures will show the blood tissues of the bovine animal affected with different types of anaplasmosis. The cycle of infection will be traced from the beginning, prior to the first constitutional symptoms, on through to the convalescent period.

A. H. Frank
Pathological Division, U. S. Bureau of Animal Industry

Infertility in cattle will be shown with pictures bearing captions and a limited number of specimens. The relationship of brucellosis, trichomoniasis, and vibriosis to the repeat breeder problem will be presented. Examination of bulls and semen will be included to complete the story of bovine infertility.

John R. Gorham
Fur Animal Disease Research Laboratory, U. S. Bureau of Animal Industry

Nutritional, bacterial, parasitic, and other diseases of fur-bearing animals will be shown by means of a series of pictures. These will demonstrate the conditions most commonly present when the practicing veterinarian is consulted by the ranch owner.

R. J. Huebner
National Institutes of Health

The epidemiology of Q fever will be shown in four panels of color pictures, maps, and charts. The relation of the disease in animals and human beings, the world distribution of the disease, the incidence in the United States, and the course of the human disease will be shown. A pamphlet covering these points will be available for distribution.

F. E. Hull
Agricultural Experiment Station, University of Kentucky

Strongyle infections in Thoroughbred foals can be controlled by preventive treatment of the broodmares with low-level phenothiazine dosage. This exhibit will show that the ultimate source of bloodworm infection for foals is the concurrent strongyle infection of the broodmares.

N. D. Levine
College of Veterinary Medicine, University of Illinois

The small strongyle nematodes which occur in the large intestine of the horse will provide the basis of this exhibit. The life cycles of these parasites will be outlined with photographic enlargements and photomicrographs of several stages in the development. Captions and descriptions will accompany the pictures.

Roy L. Mayhew
College of Agriculture, Louisiana State University

The essential details of the life cycle of the nematode parasites of cattle will be shown on a central panel. This will be flanked by photographs showing errors in management which encourage heavy parasitism and other pictures in which such faults have been corrected.

C. S. Roberts
State Veterinary Diagnostic Laboratory, Alabama Department of Agriculture
Hyperkeratosis (x-disease) will be depicted from a number of angles. Clinical cases, close-ups of gross lesions, and microphotographs of lesions in the skin and other organs will be shown.

J. H. Steele
Communicable Disease Center, U. S. P. H. S.

This exhibit demonstrates pictorially how man becomes infected with the *Brucella* organism by contact with animals on farms or in animal handling industries, or by ingestion of contaminated food products. A chart will show incidence of human brucellosis during the past twenty years, and control procedures will be illustrated.

Leonard E. Swanson
Department of Veterinary Science, University of Florida

External and internal parasites of cattle will be displayed on boards and in bottles. The several types of parasites will be identified by captions and descriptions.

Lieutenant Colonel F. A. Todd, V. C.
Office of the Surgeon General, Department of the Army

Approved methods for the control of rabies are shown in a series of colored pictures. The series includes not only the dog but also several wild animals which serve as reservoirs of the disease and are a menace to the health of grazing farm livestock.

Henry S. Ward
School of Agriculture, Alabama Polytechnic Institute

The poisonous plants of the southeastern states will provide the material for this exhibit. Riker mounts of the plants will be on display, and there will be color transparencies of the plants in their natural habitats. Captions and explanations will amplify the pictures.

• • •

*A Series of Displays Developed by the AVMA in the Interests of
Professional and Public Relations*

Animal-Human Parasites

This is the newest in the AVMA series of professional relations exhibits on the veterinarian's contributions to human health. It was prepared for initial showing at the American Medical Association's convention, June 26-30, 1950, and emphasizes the prevention of *Trichinella spiralis* and *Cysticercus bovis* infections in man. Attention is artfully focused on the life cycles of these parasites, the methods of transmission from animals to man, and the importance of cooking meats to proper temperature.

Ethics

The Association's Code of Ethics exhibit—centering attention on approved telephone directory listings, letterheads, and professional cards—has been on view at many meetings since the summer of 1948. Interested associations are invited to have a representative inspect it at Miami Beach and to inquire about its availability for their coming meetings.

Panel Series

This series of four small panels answers the long-felt need for an easy-to-assemble exhibit that effectively informs the public about the work of the veterinary medical profession. It will again be on view at Miami Beach, so that members may be reminded that it is available from the AVMA office for use at county and state fairs and similar gatherings.

Professional Liability

This new exhibit, obtainable on request for showing at state and local meetings, illustrates professional acts which may incur liability and emphasizes the valuable, low-cost protection afforded by AVMA professional liability insurance.

Publications

Six major publications of the American Veterinary Medical Association will be displayed, including the new 1950 Directory. Members who do not subscribe to the *American Journal of Veterinary Research* are especially invited to stop at the publications booth, where a staff representative will gladly show copies of recent issues and accept subscriptions.

Public Relations

The highly successful AVMA public relations program will be portrayed by samples of news, radio, magazine, and television material prepared by the Association. After viewing the exhibit, each member will have a fuller appreciation of how widely this program is benefiting veterinarians, and how it can be advantageously used in his own community.

The Commercial Exhibits at Miami Beach

The interest everyone is taking in the Miami Beach convention is nowhere better illustrated than in the following, extensive list of commercial exhibits. Thirty-six companies, occupying 41 booths, have availed themselves of this opportunity to tell the story of their products and services. Both from the standpoint of number and eye-catching variety, this annual display is always

the greatest show of its kind, and all registrants will want to visit it not once but many times during the meeting. The booths will be conveniently located in the air-conditioned Municipal Auditorium—under the same roof with major convention activities—and will be open daily from 8:30 a.m. to 5:30 p.m., beginning Monday, August 21.

Abbott Laboratories

Booth 14

Abbott Laboratories will feature important pharmaceutical products, including their complete line of antibiotic agents, intravenous solutions, and barbiturates.

Bristol Laboratories, Inc.

Booth 46

The Bristol Laboratories booth will be devoted to the display of many of their antibiotic products, including Cilloral, "penicillin by teaspoon" product, Flo-Cillin "96", Flo-Cillin Aqueous, Flo-Cillin "96" Fortified, and Pen-Aqua. Representatives will be in attendance to answer questions and distribute samples and literature.

Campbell X-Ray Corporation

Booth 24

Campbell X-Ray Corporation, of Boston, will exhibit their new 1950 model X-Ray Animagraph. This model has scores of new features for safety and convenience of operation, as well as improved general design and structural details.

The Corn States Serum Company

Booth 39

The Corn States Serum Company looks forward to every AVMA convention as an opportunity to meet old friends and make new ones. Veterinarians visiting this booth will find much interest in the wide variety of items on display, including biological products manufactured by "Corn States."

Eisele & Co.

Booth 31

Eisele & Co., will show their direct-factory line of hypodermic syringes and needles.

Fort Dodge Laboratories, Inc.

Booths 29 and 30

Among Fort Dodge biological products on display will be Newcastle Disease Vaccine, Hog Cholera Vaccine (Tissue Origin, Boynton Method), Clostridium Perfringens Bacterin, Can-O-Vax, Fel-O-Vax, and Rabies Vaccine. In the pharmaceutical line, the exhibit will feature Fortamine, Pen-Distrep Bougies and Ointment, B-Sol, and B-Po. Instruments and other products of general interest to veterinarians also will be shown.

Fromm Laboratories, Inc.

Booth 16

The Fromm Laboratories exhibit will be devoted to specialty canine biological products. Included will be Distemperoid Vaccine—the one-injection method of vaccination, homologous serum produced from dogs hyperimmunized against both distemper and fox encephalitis (infectious canine hepatitis), Fox Encephalitis Antiserum, and killed-tissue Canine Distemper Vaccine.

Gaines Dog Research Center

Booth 6

The makers of Gaines dog foods will display the literature, material, and services of the Gaines Dog Research Center.

Goshen Laboratories, Inc.*Booth 13*

Goshen's own products to be displayed include Derma Calm, Goshen Mineral and Yeast, Foot Rot Ointment, and Skin Ease. The Micro Ear Trimmer also will be on exhibit, along with Americaine's ointments and Amerotol; Cappel's Flocculation Test; Ciba's Coramine, Pyribenzamine, and hormones; Eaton's Furacin Solution Veterinary; Pyroxylin's plastics, and White Laboratories' Tyrolene.

Haver-Glover Laboratories*Booths 40 and 41*

Haver-Glover Laboratories—represented in Miami by Walter Harrison, Veterinary Supplies—proudly point out that no matter where the AVMA meets, it "doesn't go too far away to outdistance Haver-Glover coast-to-coast service." To support their South Florida agency and their many other agencies, the H-G organization will feature a complete display of biological and pharmaceutical products along with surgical items and other equipment of interest to veterinarians.

Hill Packing Company*Booth 36*

Hill Packing Company will have a new and novel exhibit of their complete line of canned and frozen meats, displayed in illuminated plastics. Prescription Diets, now available to graduate, registered veterinarians, also will be featured, and a technical adviser on nutrition will be in attendance to answer questions.

Miami Beach Session — Aug. 21-24, 1950



—Miami Beach News Bureau

The "lucky tree" at Florida's famed Silver Springs. Those taking the AVMA Florida tour will stop here for an hour to enjoy a ride in a glass-bottomed boat that permits a view of caverns, underwater rainbows, and strangely carved grottoes inhabited by many species of fish.

Jensen-Salsbery Laboratories, Inc.*Booths 8 and 9*

Jensen-Salsbery Laboratories extend a cordial invitation to all AVMA registrants to visit their booths, where new and improved Jen-Sal products for veterinary clinicians will be on display, together with surgical instruments for large and small animal practice.

Kellogg Company*Booth 38*

The Kellogg Company will offer a novel exhibit of Kellogg Gro-Pup Meal and Gro-Pup Ribbon Dog Foods, showing the ingredients used in the manufacture of these two products. Literature on canine nutrition will be available at the booth.

Kirschner Manufacturing Company*Booth 5*

Kirschner Manufacturing Company invites you to see the new developments in fracture therapy. Such new items as screw thread intramedullary pins, equipment for setting split condyles of the humerus, a coxo-femoral appliance, and new Thomas splints will be displayed. The infra-red Zephyr Drying Cage also will be shown.

Lloyd Brothers, Pharmacists, Inc.*Booth 35*

The Lloyd Brothers exhibit will feature a number of new and clinically established products. Tri-Hep-Chol, a widely accepted treatment for ketosis, will be on display and representatives will gladly answer questions about this and other Lloyd products.

Ashe Lockhart, Inc.*Booth 27*

Ashe Lockhart, Inc., will have an attractive display of the full Lockhart line of biological products for large and small animals, including antisera, vaccines, bacterins, toxoids, and diagnostic agents.

Martin Laboratories*Booth 18*

Martin Laboratories, manufacturer of Mastics for the treatment of bovine mastitis, have planned their booth with maximum attention to making it a comfortable place to stop and chat.

The S. E. Massengill Company*Booth 7*

The Veterinary Division of The S. E. Massengill Company cordially invites all AVMA registrants to visit its booth. Veterinary pharmaceutical products, backed by 54 years of manufacturing experience, will be on display.

Merck & Co., Inc.*Booth 34*

New and old uses for streptomycin in the field of veterinary medicine will be the theme of the Merck & Co. exhibit.

L. A. Mosher Company*Booths 3 and 4*

The L. A. Mosher Company, of Atlanta, Ga., will exhibit specialties manufactured by Fort Dodge Laboratories, Inc., Norden Laboratories, and Winthrop-Stearns, Inc. Also featured will be the Lamco line of insecticides and anthelmintics, manufactured by the Mosher organization. In addition, the display will focus attention on latest instruments and equipment in demand by southern practitioners.

Motorola, Inc.*Booth 19*

Motorola, Inc., of Chicago, will display a new two-way radio unit called the Uni-Channel Sensicon Dispatcher. This unit is ideally suited to use by veterinarians in maintaining instant and direct communication with their offices. Motorola engineers will be present to explain mechanical details and aid veterinarians in obtaining federal operating permits.

Nicholson Manufacturing, Inc.*Booth 32*

Nicholson Manufacturing, Inc., of Denver, Colo., will display a variety of new veterinary instruments, including the "Hi-Current Electric Firing Iron and Cautery," Plastic Water Irrigation Ring, Artificial Insemination Equipment, and a new Electric Branding Iron.

Norden Laboratories*Booths 1 and 2*

Norden Laboratories invite you to visit their booths and inspect their complete line of biological and pharmaceutical products and instruments, sold exclusively to veterinarians in accordance with their nationally advertised policy. Stop in and see for yourself the neutrality of Sulfatose (Improved), as demonstrated on the pH scale.

Pitman-Moore Co., Division of Allied Laboratories, Inc.*Booth 25*

The exhibit of Pitman-Moore-Allied Laboratories, Inc., will feature a number of new developments from that organization's pharmaceutical and biological research laboratories. Members of the scientific staff will be on hand to answer questions.

Professional Oxygen Service*Booth 11*

Professional Oxygen Service, of Miami, Fla., making its first appearance at an AVMA convention, will feature the veterinary oxygen equipment described by Dr. Robert P. Knowles, of Miami, at the 1950 meeting of the American Animal Hospital Association.

The Quaker Oats Company, Ken-L-Products Division*Booth 20*

The Quaker Oats Company's display will feature all Ken-L-Products: Ken-L-Ration, Ken-L-Biskit, and Ken-L-Meal.

Ralston Purina Company*Booth 10*

This exhibit will stress contributions that the veterinary medical profession and the Ralston Purina Company are making to livestock and poultry raising. It will show how each group, doing a good job in its own field, is adding to the farmer's success and profit.

Schenley Laboratories, Inc.*Booth 12*

Schenley Laboratories, Inc., one of the largest prime producers of penicillin and streptomycin, will feature several penicillin products designed exclusively for use by graduate, licensed veterinarians. Included will be Penicillin Vaginal Suppositories, Penicillin Ointment for udder instillation, and Procaine Penicillin G in oil.

Sharp & Dohme, Inc.*Booth 37*

Sharp & Dohme, Inc., will exhibit pharmaceutical and biological products, including special dosage forms of various sulfonamides and antibiotic agents, 'Lyovac' Brucella Abortus Vaccine (desiccated), and other lyophilized preparations. Numerous other products of interest to both large and small animal practitioners will be on display.

R. J. Strassenburgh Co.*Booth 28*

New developments in the management of superficial fungus infections, animal parasites, smooth muscle spasm, acetonemia, and liver dysfunction will be featured in the exhibit of R. J. Strassenburgh Co.

Swift & Company*Booth 22*

Swift & Company again will have a colorful and informative display at the Association's annual meeting. The exhibit will feature canned Pard and Swift's Dog Meal.

The Upjohn Company*Booth 23*

The Upjohn Company will exhibit a variety of new pharmaceutical and antibiotic products useful in veterinary medical practice, including Zymatinic Drops, Zylate Emulsion, Solu-Zyme, Berubigen Refined (vitamin B₁₂), and Cebetinic Tablets.

Veterinary Magazine Corporation*Booth 17*

Veterinary Medicine will display recent issues of that monthly publication and the newer veterinary textbooks offered by a selected group of well known book publishers. All attending veterinarians are cordially invited to visit Booth 17.

The Warren-Teed Products Company*Booth 26*

The Warren-Teed Products Company exhibit, designed to conform to the familiar W-T blue-on-white package label, will feature several of this company's products for large and small animals. These preparations have been formulated to meet the most exacting requirements of veterinary medical practice, and company representatives will welcome the opportunity to discuss them with veterinarians.

Wilson & Co., Inc.*Booth 15*

Wilson & Co. will exhibit Ideal Dog Food, which features Balamac, a critically balanced formula with reference to the amino acid content of its protein, and Balamac Plus, a balanced ratio between all of its nutilites. A booklet, "Professional Handbook on Amino Acids and Proteins," will be available at the booth.

Winthrop-Stearns, Inc.*Booth 21*

The Veterinary Division of Winthrop-Stearns, Inc., will display original synthetic pharmaceutical introductions for veterinarians, including Neoprontosil, Istizin, and Nemural, along with Parenamine, Testocaptate, and Pentobrocaneal. As national distributors for Fromm Laboratories, Inc., the Winthrop-Stearns organization also will display Distemperoid Virus, Fox Encephalitis Antiserum, Canine Distemper Vaccine (Tissue Origin), and Canine (homologous) Distemper Serum.

Miami Beach Session—Aug. 21-24, 1950*—Miami Beach News Bureau*

Water-skiing is fun and a thrill—even for the children—on Miami Beach's 30 miles of inland waterways.

A Basic Abattoir Project

HARRY E. SHEPHERD, D.V.M.

Sacramento, California

THE SPECIAL Committee on Food and Milk Hygiene had for its major project during 1948-1949 the task of designing a basic abattoir unit representative of a plant of minimum size and capacity, considered capable of operating effectively as an inspected plant under veterinary supervision.

The purpose of this project was twofold: first, to supply the small operator and his architect with a basic layout; second, to acquaint veterinarians with basic sanitary inspection requirements for the proper conduct of meat plant operation and inspection procedure.

The Committee has given serious con-

Dr. Shepherd is supervising veterinary meat inspector in charge of construction, Bureau of Meat Inspection, California State Department of Agriculture, Sacramento, and was a member of the Special Committee on Food and Milk Hygiene, 1948-1949.

The Committee gratefully acknowledges the assistance of Mr. Mario J. Ciampi, A.I.A., of San Francisco, Calif., who supplied the perspective cover sheet for the plans discussed in this paper. The modern treatment he has given the structure is one of several possibilities for exterior design that can be architecturally pleasing as well as functional in character.

Detailed plans of the Basic Abattoir Project have been prepared by H. E. Shepherd, D.V.M., and these are available in working plans, but not in engineered plans, as blue prints and white prints. These plans should be engineered by local architects and structural engineers to meet the provisions of local building codes.

The set consists of seven plates, each 36 by 32 in., drawn to the scale $\frac{1}{4}$ in. to 1 ft., as follows: Sheet 1: Perspective drawing. Sheet 2: Elevations—chutes, window positions, plant department elevations, plot plan, elevations for typical building. Sheet 3: Elevations and sections—additional elevations, section of plant to demonstrate various interior equipment installations. Sheet 4: Plan—layout, door and window locations, rail plan and elevations, equipment, clearances, orientation of departments, etc. Sheet 5: Plumbing plan—position and elevation of floor drains, screeled lines, curbing, direct drains, water and steam distribution. Sheet 6: Variations of basic plan—standard beef-bleeding rail, power hog dressing, edible offal unit, refrigerated dock, expansion of departments. Sheet 7: Detail sheet—track and rolling equipment, head flusher, pritch plates, blow tank, wall traps, floor drains, catch basin, switch chart.

Sets of these sheets are available from the AVMA office, 600 S. Michigan Ave., Chicago 5, Ill.

sideration to the financial factor involved in the construction of a suitable meat plant for inspected operations, and has made every effort to keep the project within reasonable bounds as far as initial costs are concerned. It is recognized that overbuilding, or a poor layout, from an operating standpoint, will act as a deterrent to acceptance of any suggested plan, and efforts to aid operators, architects, and the profession will have been in vain.

The ideal plant exists only in theory, since operators' needs vary in direct proportion to the number of operators. Every packer has his own ideas as to how his plant should be designed. From an inspector's standpoint, the proper conduct of operations in a plant requires that certain specified pieces of equipment be provided and certain general measurements be employed in the interest of effective inspection and operation procedures.

It can be assumed, however, that when all of the operator's needs and the inspection requirements are incorporated into a plant, the result will be an ideal plant for a specific operator.

A casual survey of existing abattoirs of the country and a review of obsolete structures, either in or out of service, will convince even the most skeptical that without inspection or a set of construction standards, the meat plant of the future will probably be no more efficient or sanitary than the plant of fifty years ago.

It is recognized that plants engaged in a business requiring federal or state inspection must employ a competent architect or engineer to prepare plans for their specific needs. There remains, however, a very large segment of the meat industry in the United States that enjoys no such status. These operators are engaged in providing slaughtering facilities for small towns, villages, or farming communities, and are found everywhere that meat animals are produced. Certainly the number of such plants runs into several thousand in the United States. Their design and arrangement, when replaced or remodeled, should be along more satisfactory lines.

Modern methods of food packaging and merchandising are bringing to the attention of the consumer the fact that meat either is or is not inspected, and the tendency to meet consumer demand for the inspected product is growing continually. Witness the efforts of several states that

have, within the last few years, inaugurated programs toward establishing state-wide meat-inspection systems.¹ Municipal inspection² already exists in many cities throughout the nation, and it is not out of the realm of possibility that within one generation we will see nation-wide meat inspection at the state-operated level to supplement the federal meat-inspection service.

The veterinary profession is entrusted with the inspection of food animals and the operation of the inspection system, and it is time that we offered a constructive program that will help the little fellow in the industry with his problem in providing sanitary slaughtering facilities along acceptable lines, by establishing building and operating standards that are not in conflict with the established federal requirements, but which are modified for small plants in a manner consistent with limited operations, yet are effective in the conduct of inspection.

If we, as veterinarians, fail in this project, we are going to lose this vital link in the chain of complete veterinary medical coverage of livestock. Moreover, since the physician is not interested in this type of work at the plant level, it most certainly will be taken over by allegedly "specially trained laymen."

The writer has made an exhaustive study of meat plant construction and operations for twenty-three years and has been identified with a system of inspection at

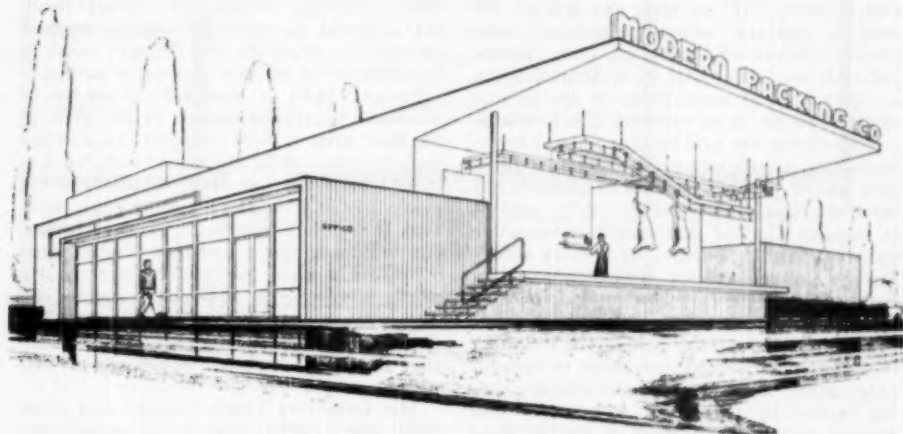
the state-wide level as a construction supervisor in this particular field for a large part of that time. It is apparent that a code for building requirements, not in conflict with federal standards but which is modified or tempered to fulfill the needs of the small plant operator, is of paramount concern at this time.

THE SMALL PLANT

Surveying the general picture of such operators in the United States, we find that the average small town slaughterer kills all species. He needs from 1 to 50 cattle per week, perhaps 2 calves for every cow killed, as many hogs as cattle, and enough sheep to round out the trade requirements of his particular market. He has a small sausage kitchen in the back of his market, or purchases smoked sausages and specialties from the larger packers and sausage kitchens.

His plant does custom slaughtering for the farmer and locker plants, consignment killing and, occasionally, a livestock buyer or market competitor runs a few animals through his plant on a per head basis. The volume is fairly consistent although, seasonally, it fluctuates in a fixed pattern, and the status of the business is such that it is considered an essential community enterprise.

Taking this picture as a starting point,



—Mario J. Ciampi, A.I.A. Architect, 333 Kearny St., San Francisco, Calif.

Fig. 1—Perspective drawing of basic abattoir project.

we recognize the following facts about the plant:

- 1) Facilities are required to kill cattle.
- 2) Facilities are required to kill calves.
- 3) Facilities are required to kill sheep.
- 4) Facilities are required to kill hogs.
- 5) Cold storage space must be provided for the volume of perishable products handled.
- 6) Inedible materials must be disposed of in a satisfactory manner.
- 7) The plant must be located convenient to market, livestock supply, adjoining property owners, water supply, and sewage disposal. The cost of the project must be consistent with the volume of business and the operator's ability to handle the financial investment required.
- 8) If inspection is required by law, construction requirements should be reasonable and just. It is not consistent with the American way of life to legislate a legitimate business out of existence.

If the list above is considered to be true and applicable, we can proceed with a justifiable enterprise and build a suitable plant to meet the operator's needs.

Meat plant designing is a specialty. It takes an understanding of operations to design a workable layout, and only by actual experience and observation can this knowledge be transcribed into a plan. Furthermore, in designing a plant for haphazard operation by choice, the result will be a plant operating on a haphazard basis by necessity.

This line of reasoning reflects itself in the manner of inspection and sanitary maintenance. If we plan and design for ease in cleaning, efficient operation, and proper conduct of inspection, then the result will be a plant that is capable of being so operated and maintained, if the human element elects to so conduct the business.

Experience has proved that federal meat-inspection construction standards are basically sound. Measurements of animals are more or less fixed within limits, and it is obvious that if we provide reasonable square or cubic footage for certain activities on a given species, we can accomplish the task before us in a manner acceptable to all parties concerned.

Keeping in mind the cost of the building, it appears to be good judgment to consolidate rather than duplicate, to utilize existing space to maximum advantage, and modify requirements when it can be done without sacrificing a sanitary principle.

The accompanying plan is a sincere effort to do all of these things. It is based

on a layout that has been employed several times on the West Coast, and the plants have been the object of intense study under actual operating conditions. The layout is basically sound. It is flexible; the plant can be expanded with minimum changes to the original structure. It is efficient from an operating standpoint. It can be kept clean with a minimum amount of effort from the labor standpoint. It satisfies all reasonable inspection requirements. It is a well-balanced plan for most operators and can be readily modified, within reasonable limits, to fit the special needs of most small city and county killers.

CONSTRUCTION PRINCIPLES

Construction principles of this plant are discussed in detail.

The floor of the plant is 4 ft. above the mean grade. This figure provides appropriate elevation for employing gravity in vertical transportation of sewage, manure, hides, blood, hog hair, and inedible offal. Truck bodies of today match 4-ft. loading docks and, while the body manufacturers have occasionally cut this elevation to 3 ft. 6 in., it is easier to step down with a load of meat than to step up.

Operations follow in logical sequence. Departments are properly related to provide for correct edible and inedible product flow. Coolers are continuous, for economic construction, while the dressing rooms, office, machine rooms, and departments not involved in sanitary maintenance of product are separate and distinct and can be constructed of less expensive material.

Natural light is provided, by means of windows, to approximately 25 per cent of the floor area in nonrefrigerated operating departments. Sills are never installed less than 5 ft. from the floor, to preclude the possibility of damage by rolling equipment. This is a safe elevation in most instances, but windows above livestock chutes must be placed higher for protection from excited animals. The hide cellar is dark, by choice, to reduce the fly problem. The plant can, if desired, be reversed to fit the site, meridian, highway approach, or prevailing winds.

The lavatories (wash basins) and sterilizers are suitably located for accessibility by all operators on the floor.

Saw and cleaver racks should extend 12 in. from the wall and be high enough to

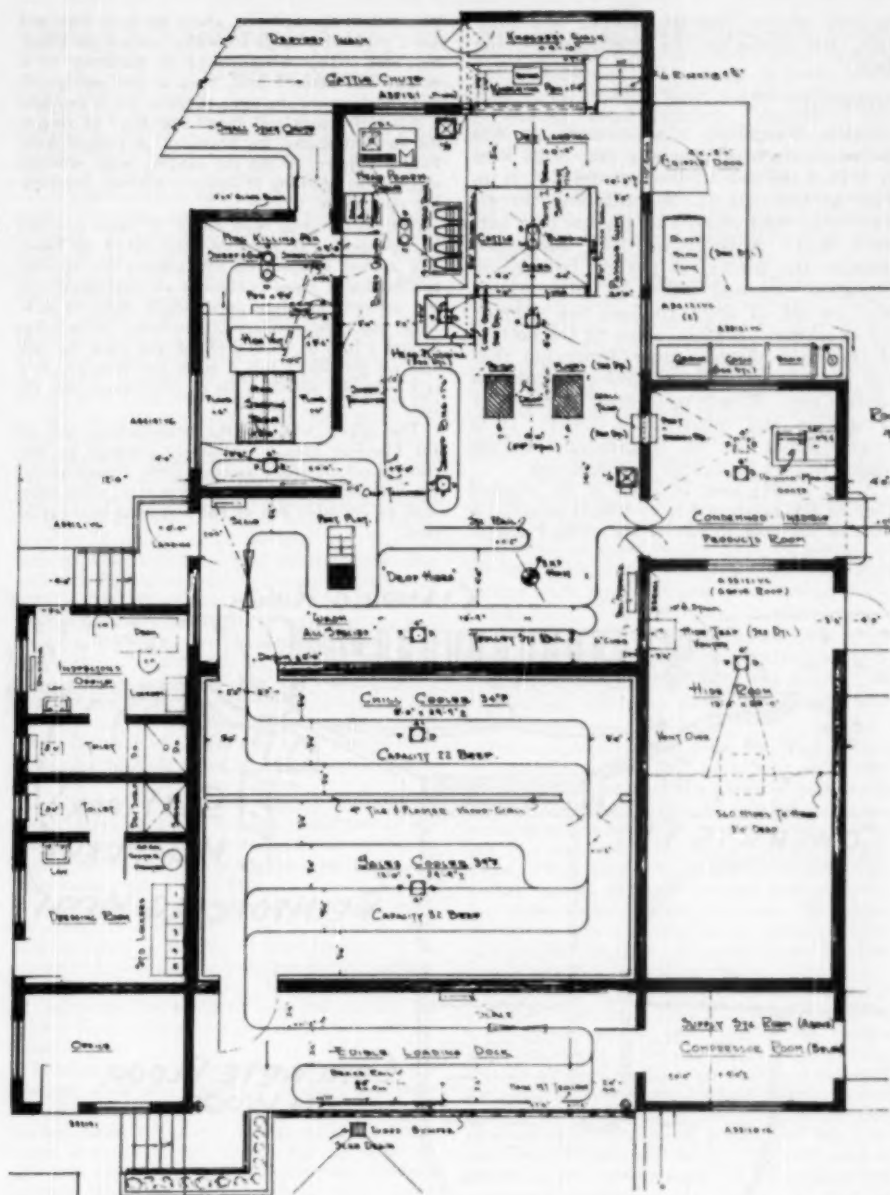


Fig. 2—Plan, showing layout and orientation of departments.

suspend sharp cleavers *above*, not even with, the heads of the operators on the floor.

OPERATIONS

Cattle Slaughter.—Cattle walk up the incline chute to a knocking pen, 8 ft. long by 2 ft. 8 in. wide at the top and 2 ft. 4 in. wide at the bottom, the difference in dimensions being created by the use of a battered wall. A revolving door, suspended through the center, in perfect balance on a central axle and locked by an overhead latch or set of dogs, confines the animals for knocking. A 12-in. space at the bottom of the door allows a door dimension that will permit the unit to revolve within the narrow pen. This type of door is very easy to operate and requires no power. It is recommended for all installations except where Kosher slaughter is conducted.

A dry landing area, in excess of the required standard dimensions of 5 ft. by 8 ft., is provided in front of the door to receive the stunned animal.

This slab is elevated 4 in. above the main floor and has a pitch of 1 in. in its width toward the bleeding area. This arrangement is preferred to a curbed and drained area, from a cost standpoint, and a slab serves the same purpose, i.e. it provides a relatively clean and blood-free floor to receive the stunned animal for hoisting. A cripple door, located adjacent to the dry landing area, provides expeditious handling of downers without interrupting operations.

A 1-ton traveling hoist on an "I" beam is rolled into position, 5 ft. from the wall end of the beam. The animal is shackled and hoisted for sticking and heading. These operations are performed over the adjacent bleeding area, which must be 8 ft. wide, since the forefeet of suspended cattle often extend 3 ft. 6 in. from a plumb line from the rail, and we provide a full 4 ft. to preclude any contact with the splash walls or other stationary object.

The splash wall on the head-flushing side of the bleeding area is absolutely essential to prevent blood of stuck animals from contaminating the beef heads on the inspection rack. The other wall is desirable but is not a mandatory installation.

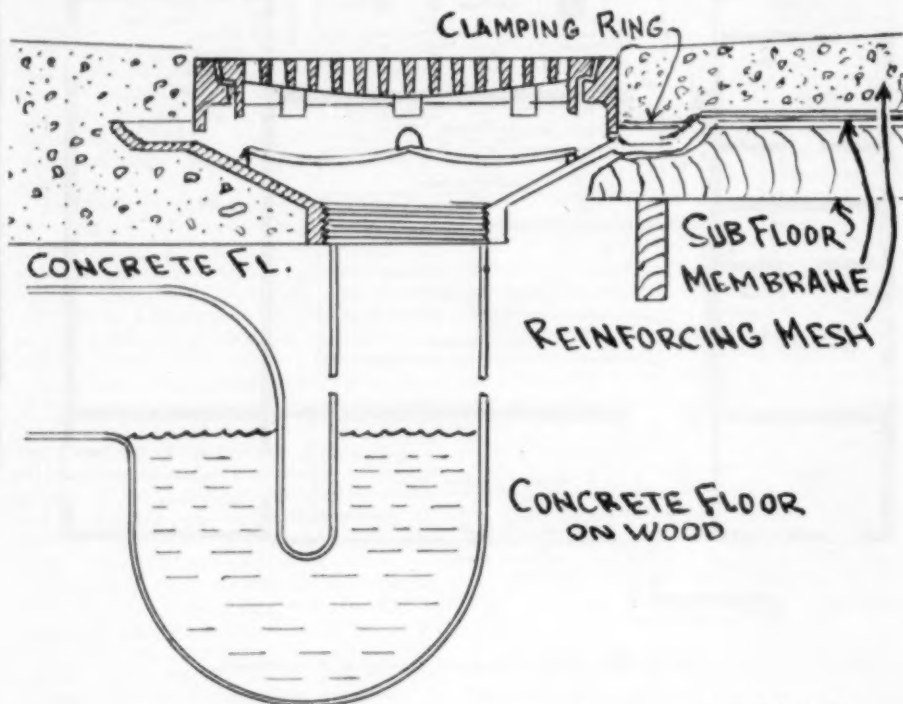


Fig. 3—Typical floor drain, showing actual size of detail drawings and scale used.

—H. E. Shepherd.

About 10 ft. of bleeding and drip area is provided. The bleeding area is 7 ft. long, and a distance of 5 ft. is provided between that area and the pritch plates or cradles.

The head is removed from the suspended animal and is carried over the drip area to the head-flushing booth where it is suspended by the mandible for oral and nasal flushing and the removal of all possible blood and regurgitated ingesta. The horns are then sawed off by hand, the head trimmed of remaining hide, and if especially soiled, it can be inverted and suspended by means of the dull hook through the foramen magnum for additional washing.

The clean head is then carried to the head-inspection rack and placed in an individual unit, in proper order, for inspection. After inspection of the glands, cheeks, and tongue, the head remains in position until the carcass is eviscerated and passed. It is then placed on the head-processing table for checking. The tongue and the cheeks are again washed and temporarily held in the hopper under a cold water spray until such time as they are placed on an offal rack, which is spotted on the hog-dressing rail which, during beef operations, is otherwise out of service. This provides convenient accessibility to both the head-processing area and the viscera truck-inspection station. The head is brained on the braining block, and the skull is placed in a barrel or is carried to the wall trap for dispatching to the inedible room.

The carcass is then lowered to the pritch plates (or cradle if employed) and the animal can be pritched up by one man. Legs are broken and tossed through the wall trap, as are udders, small slunks, pizzles, etc. This eliminates barrels from occupying valuable space on this compact killing floor and is a desirable installation.

A distance of 14 ft. is required between the pritch plates and the rumping hoist for an inspection or traffic alley, in order to provide access to the inedible products room. Multiple bed plants customarily require 16 to 18 ft.

When killing cattle in the four positions simultaneously, *i.e.*, bleeding, flooring, rumping, and hide dropping, a distance of approximately 52 ft. is required from the knocking pen to the assembly rail. This installation cuts that figure to 45 ft. by employing an L-shaped arrangement, the direction being changed 90 degrees at the rumping hoist.

Evisceration is performed near the door to the inedible room and hides are dropped relatively near the hide chute. After assembling, sides are washed from a portable tower against a blank cooler wall for splash control, and the drain in this area provides prompt and adequate drainage control. The U-shaped rail routing allows space for a track scale for hot weighing, and the carcass then goes to the chill box through a metal-clad cooler door 4 ft. wide.

A beef-killing unit of this length, operating under a proper division of labor, is capable of handling 10 cattle per hour. The bottleneck in

this layout is the traveling hoist which regulates the speed, since it acts as a hoist, lander, bleeding rail, and dropper. The savings in initial investment of the traveling hoist is considerable and is justified for limited operations. Expansion of beef-killing operations from 6 to 10 per hour can be made by installing the items of machinery named above in connection with a bleeding rail 16 ft. from the floor, placed in a roof dormer to provide the necessary increase in ceiling height. Computed on a cubage basis, the traveling hoist saves about 1,190 cu. ft. of space in the building.

Calf Slaughter.—Large range calves should go over the beef system. Small calves walk up the small stock chute to the shackling pen where they are knocked or, if small, are shackled alive with a special hock shackle. They are pushed off onto the calf- and sheep-bleeding rail which is placed about shoulder height, 4 ft. 8 in. above the floor of the pen. A bleeding area is provided, and the calf is washed against a wall for splash control. The head is then removed and racked for inspection. For calf head inspection, the rack is placed in the cattle-bleeding area on the opposite side of the wall from its position during cattle slaughter. This prevents contamination of heads by bleeding carcasses and gives the inspector a clean working area in which to conduct the inspection of the heads. No duplication of hose lines is required for this setup.

Empty dressing trolleys, 40 in. long (top of track to gambrel), are fed into the transfer point from the hog-killing room where they are customarily stored. A gambrel is inserted into the cut strings of the hock, the calf is swung toward the dressing rail, and the gambrel is dropped into the dressing trolley. This releases the weight of the calf on the shackle and the latter is removed from the hock and carried back to the pen for re-use. This transfer can be done ordinarily by an operator while standing on the floor. A small 12-in. platform may be necessary for a short man.

Evisceration is performed on a small portable platform 14 in. high. Sets of viscera are placed for inspection in the pluck pan of the viscera-inspection truck. Upon completing the inspection, they are dropped to the lower section of the truck for transportation to the inedible room. A final washing of the carcass is performed in the area allocated to washing of all species, and this completes the dressing operation. The offal rack is placed on the beef-dressing rail for accessibility during calf slaughter.

Sheep Slaughter.—Sheep are shackled in the customary manner and are hung off and bled in the bleeding area provided. They can be breasted at this point or after legging and transferring to the ring.

Carriers on the ring are single-wheel, offset-fulcrum type. Pelts can thus be pulled from either side of the ring. In this plant, they can be pulled toward the hide-chute trap and individually, or in groups, be kicked through the trap to the hide room.

Viscera inspection is performed in the pan of the truck, carcass inspection on the rail. After washing, priming, crossing, and tying, the carcass is transferred to the sheep log, which is suspended on the beef-dressing rail. Two trolley logs that have a capacity of 10 sheep (5 on a side) are recommended, since they guarantee passage through doors without contact, provide orderly storage for inspection and allow for fast computation of average weight per carcass by dividing the sheep log load by ten.

Hog Slaughter.—Hogs may be knocked or shackled alive. This layout is adequate for 5 hogs at a time in the pen or on the rail (but not both). The small 500-lb. hoist serves to pick up and land hogs with one end of the chain, while the opposite end is employed as a drop to lower hogs into the tub. A limit switch on the hoist regulates movement of both ends of the chain.

This hoist and skid rail (diameter 1 15/16 in.) arrangement is an improvement over floor sticking, as it ensures a thorax free from hypostatic hemorrhage as well as more complete bleeding of the animal. The 5 hogs should be suspended and then stuck as a group so that no animal is on the floor while others are bleeding above it. Hand cleaning methods are employed on this layout. The shaved carcass is raised to the dressing trolley position by block and tackle or with a small hoist. The carcass is singed and steamed in the separate rough-dressing room, after which it is rolled out onto the main killing floor for evisceration by an operator standing on a platform, 14 in. high (same as for calves). The standard 40-in. trolley is used for both hogs and calves.

Floor elevations shown are satisfactory for floor bleeding of knocked animals. This method can be employed temporarily or even over long periods, pending installation of hoisting equipment. It allows stuck hogs to be rolled into the scalding vat from the sticking floor level. It is a rather crude method, although universally employed by small plants. It has the advantage of economy in installation. Its chief fault lies in the incomplete bleeding of carcasses so common when the floor-sticking method is used.

This hog unit can be expanded for mechanical debairing with a minimum of change in the original structure. Overhead ventilation in this department is necessary and, under certain conditions, forced draft may be mandatory.

Inedible Products and Condemned Room.—Paunches are slid from the truck onto the manure grate. They are incised and the paunch contents are shaken through the

grate into the trailer or sled placed in the room below this department. If required by the renderer, inedible material may be dipped in a barrel of running water for flushing purposes. All inedible products should be stored in metal drums. The room serves as a truck-sterilizing room when the paunch truck is contaminated by condemned viscera, pus, etc. A condemned rail matches the plant track system and provides a means for quick, sanitary transportation and storage of condemned carcasses. Extending 4 ft. outside the door, it permits dropping the entire carcass into the renderer's truck with a minimum amount of contact or handling.

Coolers.—Standard operating practices require that the ratio of sales cooler to chill box approximate 2:1, or 3:1 if the plant hangs the customer's marked product for a long time. This plant provides less than a 2:1 ratio, but such a small plant usually supplements its cooler space by prompt transfer of product to its market walk-in box. Cooler capacity has but an indirect significance from a sanitary standpoint, and it is largely governed by business requirements of the particular plant.

Cooler expansion is possible by adding more cooler units to the front of the plant. The free-standing vapor partition between the coolers can later be removed, if desired, and the two units be used as a large chill box.

Cast iron hubs for direct drainage lines should be placed in the floor on the side of each room, as illustrated (fig. 3), to be used for direct connection for drainage lines of overhead refrigeration units. Pipe lines to or from the units can not cross the track system, so this consideration is of structural importance.

Attention is directed to the necessity for leaving at least 3 ft. of clearance between the track framing and the ceiling, in order to provide adequate space for refrigeration unit installation above the track line. Units suspended lower than the frame create a drainage problem (discussed above) and may also foul the track system and carcass movement.

The metal-clad, double-acting doors or vestibule doors between coolers are usually suspended on three sets of heavy-duty, double-acting hinges. The doors are necessary for vapor control between the two cooler units and must be self-closing to ensure proper humidity control.

Loading Dock.—The loading dock should never be less than 8 ft. in depth. This dimension allows for three passes of the track system. One rail is loaded with a number of unweighed carcasses. The cooler door can then be closed. After weighing, the carcasses can be held on the second rail for removal of the forequarter. The third rail is the drop rail, or brake rail, an inclined section which changes the track elevation from 11 ft. 2 in. to 7 ft. 6 in. for convenience in removing the hindquarter from the trolley.

The office is close to the loading dock for convenience in billing customers, and its location is important from the standpoint of watching product movement and to discourage theft.

Weather conditions and certain operating factors may warrant the use of an enclosed loading dock. Enclosure should always be supplemented with mechanical refrigeration of the department to 50 F., or less, to preclude the entrance of flies and to justify the lack of natural light. Such a refrigerated dock can be used to advantage as a third cooler, boning room, or as a general assembly and shipping department. Experience has proved that a minimum depth of 12 ft. is required for an enclosed dock for a plant of this size, while 15 ft. is ideal.

Welfare and Office Unit.—An inspector's office, provided with sanitary facilities, should approximate 96 sq. ft. minimum in area. This plan provides a more spacious unit, in keeping with fixed measurements of adjoining departments.

Lockers, one for street clothes and one for work clothes, are provided. Steam heat, lavatory, shower, and toilet facilities are contiguous with the inspector's office and for the inspector's exclusive use. The employees' dressing room should approximate 75 cu. ft. of space per man or, roughly, 10 sq. ft. of floor area (with an 8-ft. ceiling) per man using the room. Standard lockers, 15 in. by 18 in. by 16 in. are placed on a frame 16 in. high, which is provided with a 2 by 12 in. plank seat in front of, and below, the locker doors. Steam coils under the unit heat the room and dry out wet clothing over night. The lockers have sloping tops to prevent storage outside of the locker.

While the welfare rooms can be provided with floor drains for flushing, a unit as

small as the plan illustrates can be mopped out in a satisfactory manner.

The layout of this department is such that a nonfenestrated plant wall can be used to advantage as the back, or fourth, wall. Wide diversification is possible as to location and accessibility. An expensive but very convenient plan has these units on the plant level. They open onto a hallway 6 ft. wide, extending from the front dock to the killing floor. Pedestrian as well as equipment movement enroute to the killing floor pass around instead of through the coolers by way of the hallway, thus saving considerable refrigeration. The hallway must be lighted by overhead fenestration and the floor provided with drains.

Hide Room.—This unit is on the ground level plus 6 in. Hides enter from the killing floor by way of the vented hide trap. The dimension of this department can be varied to accommodate the volume of cattle slaughtered. The plant under discussion is ample for spreading, salting, storing, and shaking 360 hides in a 3-ft. stack, or 480 hides in a 4-ft. stack, using the factor 1.5 cu. ft. per salted hide.

Placement of this unit on the "inedible side" of the plant is deliberate for sanitary reasons. A common concrete slab serves for all inedible operations, that is, cleaning the catch basin, loading inedible offal, manure handling, and hide shaking. Inedible operations are not continuous with edible loading but are separate and partially concealed by an intervening department, the compressor room and storage room.

GENERAL SPECIFICATIONS^{3,4}

Building.—Reinforced concrete, cement block, brick, frame, frame and stucco, or corrugated metal exterior.

Floors.—Reinforced concrete slabs, minimum of 3½ in. thick, or split tile on concrete. Wood float finish on floors.

Interior Walls.—Portland cement plaster, steel troweled finish up to the track frame line in all departments. Painting the plaster is not recommended. Salt-glazed tile above extended curbsings of concrete give an excellent interior finish and dress up the plant but are much more expensive.

Windows.—Commercial projected steel sash, projected up and in type, for all operating departments using windows. Screens outside. Projected or casement sash in welfare and office units. Window sills to be "bull nosed," plaster reveal or, preferably, 45-degree-angle sills, to prevent their use as shelves.

Ceilings.—Wood or cement plaster. If wood,

smooth tongue and groove. Sheath all ceilings having rafters or joists closer than 3 ft. on center.

Track.—Flats, $\frac{3}{8}$ or $\frac{1}{2}$ in. by $2\frac{1}{2}$ in. Hangers, $10\frac{1}{2}$ in. spaced on 30 in. centers. Standard cast iron switches. Beef-bleeding rail $\frac{1}{2}$ by 3 in. flats. Skid rail 1 $\frac{15}{16}$ in. diameter, cold rolled steel.

Equipment.—Standard equipment as used in acceptable trade practice in the industry and stocked by all reputable equipment suppliers. Galvanized or noncorrosive metals to be used in places where meat or products come in contact with the equipment. Rolling stock as supplied by equipment companies.

Painting.—All exposed woodwork in the interior of the building to be painted with an oil base paint, preferably light in color.

Drainage.—Use 4-in. cast iron lines in conformity with local codes. Combination blood and water drains to be standard equipment and supplied with machined plugs. All floor drains to have "P" traps.

Water.—Provide a potable water supply, under 65- to 70-lb. pressure, at all times. Distribute in galvanized pipe at least $\frac{3}{4}$ in. in diameter at the fixture. Header lines to be of ample size to carry the load.

Steam.—Provide adequate pressure, 75 to 100 lb., by use of a steam boiler or steam generator. A 15- to 20-horsepower boiler will handle this plant satisfactorily. Distribute in black pipe.

Refrigeration.—This plant is designed for overhead blower units or coils. A falling brine system, a brine deck, or the use of floor-type blower units will require increased cubage in the plant for their proper installation.

SUMMARY

A plant has been designed incorporating the basic structural requirements for operating under a veterinary meat-inspection system at the state, county, or city level.



—Miami Beach News Bureau

Oceanfront patios and porches in Miami Beach are attractive to vacationists for dining.

Features of the basic plan are discussed and several examples of economic modifications of the basic plan are illustrated and discussed.

Details of the more complex units or technical installations are provided.

General specifications of the building, not technical in scope, are listed.

The project is important to meat plant operators, architects, and veterinarians, since it establishes and explains construction standards for a small abattoir suitable for operating as an inspected plant under conditions existing in the meat industry in the United States.

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ACTH in Eye Diseases

The favorable response of certain diseases of the human eye to adrenocorticotrophic hormone (ACTH), the newly discovered drug treatment for arthritis, suggests its use in periodic ophthalmia of the horse. Gordon and McLean (*J. Am. M. A.*, April 22, 1950) employed ACTH with dramatic results in iridocyclitis, corneal edema, chorioiditis, and retinitis most of which may be a part of the panophthalmia we designate recurrent or periodic ophthalmia in solipeds.

In view of its action on collagenous tissue such as the structures secreting the humors of the eyeball, it was natural for ophthalmologists to give this hormone a trial, but no more natural than it must eventually be to test its worth in the equine species.

Although veterinary officers of the U. S. Army have paved the way for the prevention of periodic ophthalmia, all agree that nothing approaching a cure has been discovered.

Swine raisers in the United States are spending \$20 to \$30 million per year to control hog cholera, which includes the cost of vaccination.—E. F. Saunders, D.V.M., Missouri.

Brucellosis as an Occupational Hazard

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DURING recent years, numerous reports have presented statistics about human *Brucella* infection. Most of these studies have been based on serologic tests performed on blood serums, and on opsonocytaphagic or intradermal tests. The populations surveyed for the incidence of reactors have

TABLE 1—Reactors to the Agglutination Test in Rendering Plant and Slaughterhouse Workers in Indiana

Employment	Tested (No.)	Reacting (No.)	(%)
Rendering plant workers	142	39	27.4
Slaughterhouse workers	394	51	12.9

been varied. Results have been published,¹⁻⁴ to cite just a few, of agglutination tests performed on serums from the general population, such as are sent to the diagnostic laboratory for serodiagnostic tests for syphilis. On the other hand, there have been numerous surveys of particular groups in the population, e.g., veterinarians and packing house workers.⁴⁻⁶

While it is true that the significance attached to reactors in such surveys is subject to definite limitations, the studies have contributed to a better understanding of the epidemiology of brucellosis. With this in mind, it was decided to take advantage of the opportunity afforded by the inception of the Indiana Brucellosis Study Project to carry out surveys of a similar nature in this geographic area. Accordingly, blood specimens were collected from (1) farm workers, whose contacts with animals that might be infected were numerous; (2) slaughterhouse and rendering plant employees, whose opportunities for exposure are obvious; and (3) veterinarians, who

From the Bureau of Laboratories, Indiana State Board of Health, Indianapolis (Damon, director, and Parker); and senior assistant veterinarian (R). Communicable Disease Center, Public Health Service, Federal Security Agency (Scruggs).

This investigation was supported in part by a research grant from the Division of Research Grants and Fellowships of the National Institutes of Health, U.S. Public Health Service.

are exposed almost daily in the course of their occupation. In the tables setting forth the results of these surveys, individuals classified as reactors to the agglutination test were persons who gave any degree of reaction in a serum dilution of 1:80 or higher.

To anyone familiar with the operation of a meat-packing plant, it will be evident that not all jobs are of equal potential hazard. It is of interest, therefore, to break down the figures to bring out this point as is done in table 2.

In the survey of farm workers, the figures are broken down by sex, as it was presumed there might be a significant difference between men and women due to the

TABLE 2—Reactors to the Agglutination Test in Employees of Slaughterhouses According to Their Duties

Duties	Tested (No.)	Reacting (No.)	(%)
Supervisory	14	2	14.2
Maintenance	24	3	12.5
Truck drivers	15	2	13.3
Shipping	38	1	2.6
Warehouse	11	1	9.1
Rendering	30	2	6.7
Smoking	5	1	20.0
Sausage and canning	50	4	8.0
Bacon processing	19	0	0
Slaughtering	112	25	22.3
Tanking	21	7	33.3
Boning	32	1	3.2
Clean-up	21	2	9.5
Office	9	0	0

closer contact of the men with animals at parturition.

Finally, in connection with the survey of the occupational hazards associated with

TABLE 3—Reactors to the Agglutination Test Among Farm Workers in Indiana

Sex	Tested (No.)	Reacting (No.)	(%)
Male	190	7	3.7
Female	123	2	1.6

brucellosis, advantage was taken of the opportunity afforded by the annual meetings of the Indiana Veterinary Medical Association and the American Veterinary Medical

Association to collect blood specimens from those veterinarians who volunteered to be tested. The results are indicated in tables 4 and 5.

TABLE 4—Reactors to the Agglutination Test Among Indiana Veterinarians

Year of test	Tested	Reacting	
	(No.)	(No.)	(%)
1947	61	33	56.0
1948	73	34	46.5
1949	39	1	2.5

As would be expected, a much larger number of individuals were tested at the national meetings and the donors represent a national spread, geographically.

TABLE 5—Reactors to the Agglutination Test Among Veterinarians Attending Meetings of the American Veterinary Medical Association

Meeting Place and time	Tested	Reacting	
	(No.)	(No.)	(%)
Cincinnati, 1947	252	43	17.3
San Francisco, 1948	174	29	16.6
Detroit, 1949	203	52	25.6

SUMMARY

Serologic surveys of population groups occupationally exposed to brucellosis indicate that a fair percentage of individuals either have or have had exposure to *Brucella* organisms. The number reacting among the women farm workers is significantly smaller than among the men and probably reflects the closer contact of the men with infected domestic animals.

Among veterinarians, the percentage reacting is high at both the local and national level, and this is certainly an indication of an occupational hazard, as no population group has such opportunities for daily exposure.

Likewise, in rendering plant workers, the number of reacting employees is surprisingly high, as is also the case in meat-packing plants. However, in the packing plants, there is a definite correlation between the type of job and the hazard of infection. As would be anticipated, those workers having most intimate contact with infected animals or their organs show the largest number of reactors.

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Prudence Island Selected for Foot-and-Mouth Disease Research

Long debate over where to build the United States' proposed foot-and-mouth disease research laboratory has ended with the selection of Prudence Island in Narragansett Bay—a favorite all along.

Secretary of Agriculture Brannan announced on May 5, 1950, that the USDA had signed an agreement to take an option on a site on this island, which is a part of Rhode Island and located about midway between the city of Providence and the mouth of the Bay.

The USDA announcement made no mention of how or if factions opposing the Prudence Island project were brought into accord with the plan. Previously, a local group campaigned vigorously to bar the laboratory from Rhode Island. Also, some livestock interests elsewhere argued that the project should be kept "safely away" from any United States area, notwithstanding assurance by the USDA that foolproof safeguards would be set up to prevent escape of the virus.

International travel with accompanying new risks of introducing foot-and-mouth disease, plus alarm over the Mexican outbreak, provided the stimulus for establishment of the laboratory. Authority to conduct research on the disease was granted under Public Law 486, approved April 24, 1948. A specification of the law is that the project be established on a coastal island separated by navigable waters. Congress later authorized the USDA to take an option on a suitable site, and Prudence Island was among the few places that met all requirements.

SURGERY & OBSTETRICS

AND PROBLEMS OF BREEDING

The Combined Use of Pentobarbital Sodium and Methadone Hydrochloride for Anesthesia in Dogs

GEORG CRONHEIM, Ph.D., and MICHAEL EHRLICH, B.S.

Bristol, Tennessee

THE MOST commonly used anesthetic in small animal practice is undoubtedly pentobarbital sodium. This widespread use is due to the quick action and dependability of this barbiturate, as well as its relative safety. However, the tolerance to the drug may vary considerably depending upon the age and physical condition of the animal and other factors which are only partially understood and over which there is usually very little control. Thus, it has been reported¹ that injections of thiamine hydrochloride will increase the susceptibility of normal rats to lethal doses of pentobarbital sodium. When given orally, this vitamin will prolong the hypnotic action of the drug in normal, but not in castrated, animals.

The generally recommended anesthetic dose of pentobarbital sodium for small animals is 30 mg. per kilogram (1 gr./5 lb.) of body weight. However, this amount is not always sufficient for complete surgical anesthesia, and it may be necessary to administer additional quantities. Judging from experience with the laboratory animals, which is supported by observation in veterinary practice, such an increase in the dose of pentobarbital sodium is not without danger. Table 1 summarizes data on acute toxicities in rabbits and rats, which have been accumulated in our laboratory and which agree well with other published information. They indicate clearly that fatalities may be expected from raising the amount of the anesthetic medication by even a relatively small percentage.

In order to eliminate the danger of an overdose of pentobarbital sodium, while at the same time assuring complete surgical

anesthesia, we have investigated the effect of various drug combinations, particularly barbiturates and analgesics. The recently introduced compound, methadone, seems

TABLE 1—Acute Toxicity of Pentobarbital Sodium in Rabbits and Rats

Dose in mg./kg.	30	40	42.5	45	47.5	50	60
Rabbits (intravenous administration)							
No. of animals	10	5	5	29	6	5	—
Average sleeping time in min.	110	210	220	225	225	—	—
No. of fatalities	0	1	3	9	2	4	—
Mortality in %	0	3	13	34	75	95	—
Rats (intraperitoneal administration)							
No. of animals	30	—	—	16	—	12	5
Average sleeping time in min.	75	—	—	200	—	240	—
No. of fatalities	0	—	—	5	—	7	5
Mortality in %	0	—	—	24	—	71	100

*The mortality was calculated according to the method of Behren's.⁴

particularly well suited, and its use as pre-anesthetic in combination with surital has been reported². Methadone hydrochloride (6-dimethylamino-4,4-diphenyl-heptanone hydrochloride) has been studied extensively as analgesic and preanesthetic medication in human medicine, where it has shown its value and, in certain respects, its superiority over morphine. The use of methadone in small animal medicine has been suggested in an editorial in this JOURNAL.³ In dogs, methadone is well tolerated. The surgical anesthetic dose, when given subcutaneously, is 15 mg. per kilogram, with a maximum tolerated dose of 25 mg. per kilogram. The subcutaneous l.d.₅₀ in dogs is 50 mg. per kilogram.²

The effect of pentobarbital sodium alone, and after premedication with methadone, was studied in healthy dogs of various ages and weights. After an overnight fast, the animals were injected intravenously with pentobarbital sodium alone or thirty min-

From the Research Department of the S. E. Massengill Company, Bristol, Tenn.

utes following a subcutaneous injection of methadone hydrochloride. Each dog was observed for the duration of flaccid prostration (sleeping time) and of surgical anesthesia as judged by a pedal reflex or a response to pinching of the tail end. Each dog was allowed a rest period of one week between experiments. The results are shown in table 2.

With the average dose of 30 mg per kilogram of pentobarbital sodium, the sleeping

TABLE 2—Duration of Sleeping Time in Dogs under Pentobarbital Sodium Anesthesia Preceded by Injection of Methadone Hydrochloride

Methadone hydrochloride mg./kg.	—	0.5	1.0	—	1.0
Pentobarbital sodium mg./kg.	30	30	30	15	15
Weight of Dog in kg.	Sleeping Time in Min.				
11.6	245	280	370	45	120
7.5	155	225	265	40	65
7.0	185	260	250	40	75
10.7	200	240	255	50	95
9.5	260	225	225	—	—
7.6	280	290	250	50	160
8.4	220	300	210	50	150
Average	220	260	260	45	90

time is practically the same regardless of whether the barbiturate is preceded by either 0.5 or 1.0 mg. per kilogram of methadone hydrochloride. It varies from 150 to 300 minutes with an over-all average of about 250 minutes. The differences between the three groups of experiments are not statistically significant.

If the dose of pentobarbital sodium is reduced to half the usual amount (15 mg./kg.), the average sleeping time falls to forty-five minutes which is hardly sufficient for most surgical procedures. However, following a preliminary subcutaneous injection of 1 mg. per kilogram of methadone hydrochloride, it is greatly extended in every case, averaging one hundred minutes. In almost all animals, the combination of methadone and pentobarbital results at least in doubling of the sleeping time.

The duration of surgical analgesia as determined by a reflex response to pinching of the end of the tail or by a pedal reflex is not always identical with the period of flaccid prostration. After administration of pentobarbital sodium alone, the surgical anesthesia averaged only about one-half the sleeping time. During the second half of the sleeping time, the dogs would, in most instances, respond by a distinct movement of one or several limbs. In contrast to this observation, the animals which had received methadone plus pentobarbital usual-

ly did not show any response to the pinching of the tail during the period of prostration, but would suddenly awake as a result of the test. Thus, the duration of surgical anesthesia is practically the same as the sleeping time.

It can be seen from the data in table 2 that, after premedication with methadone hydrochloride, the length of the sleeping time and the depth of surgical analgesia with the reduced dose of pentobarbital sodium was, in our series of experiments, not less than sixty-five minutes. This duration, which is adequate for almost every type of operation in small animals, was obtained with half the usual dose of the barbiturate combined with an amount of methadone hydrochloride which is far below any toxic level. The combination of these two drugs makes it possible to avoid any fatalities or complications which may arise due to uncontrollable previous factors which would not permit the administration of the regular, or an increased, dose of pentobarbital sodium.

SUMMARY

By a combined administration of methadone hydrochloride and pentobarbital sodium, it is possible to obtain satisfactory surgical anesthesia in dogs with a greatly reduced dose of the barbiturate. The danger of a fatality from an overdose of pentobarbital sodium in susceptible animals is thereby eliminated.

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- ²Reutner, T. F., and Grubitz, O. M.: Methadon, a New Analgesic. *J.A.V.M.A.*, 113, (1948):448-51.
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For castrating boars, snub them up in a corner and elevate the hind quarters with a rope or obstetrical chain around the body in the flank area, so that the hind feet are just off the ground.—A. G. Krause, D.V.M., Iowa.

Sex, color, color pattern, physical character, and temperament are heritable characters which geneticists can predict.—L. O. Gilmore, Ph.D., Minnesota.

Histoplasmosis in a Cat

Histoplasmosis is an infectious disease of men and animals. Typically, it runs a chronic course, but atypically, the course may be subacute and acute. Anatomically, the disease is associated with specific cell proliferation and especially with reticulo-endotheliasis. Also, there is necrosis of the infected tissues.

This infection is a discrete, but a very dangerous and fatal, disease. The agent of the disease is a yeastlike fungus, *Histoplasma capsulatum*, an obligate parasite. The disease was first described by Darling in 1906.

In Turkey, histoplasmosis is little known. The infection is especially found in the United States. According to the literature, 5 cases have been found in Europe and Africa. Over all the world, not more than 90 human and only 36 animal cases have been recorded. All the animal cases have been in dogs.

In Turkey, histoplasmosis was first found in a merchant in 1945 by Ord. Prof. Dr. General Tevfik Saglam, the director of the third medical clinical department of the University of Istanbul.

I found histoplasmosis in a cat in 1949, during a routine autopsy. According to the literature, this is the first case of histoplasmosis seen in a cat anywhere in the world.

Case Report.—The patient, a 6-month-old cat, had been a capable mouse-catcher. The clinical manifestations were weight loss and a progressive cachexia, hypochromic anemia, nasal secretion, and coughing. The patient died of circulatory and respiratory insufficiency, Nov. 24, 1949, after a clinical diagnosis of bronchopneumonia.

Gross Findings.—Autopsy was performed on the day of death and the following anatomical changes were seen: Ulcerous gastritis, catarrhal enteritis, disseminated focal necroses in the liver, splenomegaly, a small amount of turbid and reddish fluid in the abdominal cavity, muscles pale, numerous miliary tubercle-like granulomata in all lobes of the lung, a frothy fluid in the bronchi, hyperemia and edema in the lung parenchyma, enlargement of the mediastinal lymph nodes.

Dr. (Major) Akün is pathologist and bacteriologist in the Pathological Anatomy Department of the Military Veterinary Academy, Ankara, Turkey.

Microscopic Findings.—The results of the histologic researches are:

1) Liver sections showed stasis hyperemia, fat degeneration, necrobiotic changes, round cell infiltration, mobilization and proliferation of the Kupferstar cells and histiocytes.

2) Lung sections showed edema and hyperemia, together with bronchopneumonial foci, enlargement of the peribronchial con-

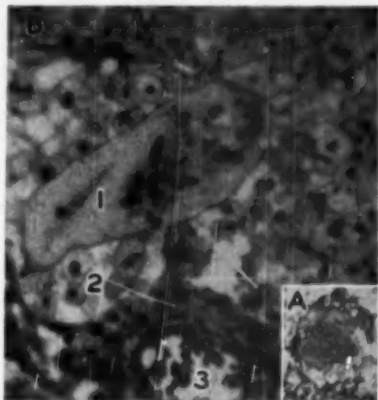


Fig. 1.—A lung *Histoplasma miliary* of subpleural formation. A—slightly magnified: *Histoplasma miliary* (paraf. : 3µ; hematoxylin and eosin stain; x 50). B—highly magnified: 1, the phagotized intracellular (ingested) *Histoplasma capsulatum* seen in a queerly swollen macrophage; 2, free extracellular-intra-alveolar *Histoplasma capsulatum*; and 3, septum interalveolar and a capillary (paraf. : 3µ; hematoxylin and eosin stain; x 600).

junctive tissue associated with the proliferation of the lymphadenoid tissue, disseminated round cell infiltration, round cell elements in some of the bronchial lumens, and enlargement of the interlobular tissue, with alveoli full of serum, dead alveolar epithelium, round cells, and especially yeast-like organisms.

When specific and histomycologic sections were slightly magnified, in the lung sections were seen round or oval granulomata, which were sharply differentiated from the tissue containing the surrounding air. These granulomata were *Histoplasma miliary* (fig. 1,A.). In some of these, coagulation necroses were demonstrated, which were without structure (amorphous) and were stained a deep red with eosin. The lung tissue between the granulomata was hyperemic. Some of the alveoli were emphyse-

matous; others contained a cellular exudate and *H. capsulatum*.

When highly magnified, the microarchitecture of *H. miliaris* was associated with various cellular elements. This cellular collection, together with *H. capsulatum*, consisted of plasma cells, reticuloendothelial cells, some giant cells similar to Sternberg-Redd type. The reticuloendothelial cells were swollen, producing a queer and a monstrous form (fig. 1, B1). The protoplasm of these swollen reticuloendothelial cells contained many *H. capsulatum*, all in ingested forms. These ingested, yeastlike microorganisms were noncapsulated, but the yeasts, which were extracellular and intra-alveolar (fig. 1, B2), were all capsulated.

CONCLUSION

Histoplasmosis, as a disease of man and animals, is present in Turkey as it is in the U.S.A. and in other countries. In Turkey, 1 human case in 1945 and 1 feline case in 1949 have been reported. The case of the cat was found during a routine autopsy, and quite by chance. To assume cats occupying the middle ring of the epidemic chain is an acceptable idea. As in the U.S.A., so also in Turkey, it is possible that the epidemic pilots are rats and mice.—Resat S. Akun, D.V.M., Ankara, Turkey.

Conjunctival Flap Operation

Five or six years ago, Dr. G. H. Ludins, of Hartford, Conn., described a conjunctival keratoplasty at a quarterly meeting of Connecticut veterinarians. I have seen no written reference to the technique of this operation in our literature. Because of the highly successful results I have had with this operation, I feel that the practitioners not familiar with the technique will be benefited by a review. I prefer it to the flap operation described by Dr. O. F. Reihart in "Canine Surgery."

There are several specific indications for this operation, but generally it is a practical procedure whenever there is a demand for an immediate blood supply to the avascular surface of the cornea.

Because of the high incidence of hernia of Descemet's membrane following simple ulcerative keratitis and the comparative simplicity of the flap operation, I routinely resort to surgery when treating corneal ulcers. Results are much better than with cauterization, medical treatment, or both. Often, dogs are presented for the first time

after the hernia is established. In treating these cases with the conjunctival flap operation, the healing time and the return of normal contour is greatly shortened, and, more important, enucleation is less often the end indication.

Deep scratches, gouges, and even through-and-through lacerations of the cornea respond dramatically to this operation. The result of the case upon which I most recently operated was so gratifying that it stimulated me to relate the efficacy of this operation to fellow practitioners. The case was a crossbred Fox Terrier with a longitudinal laceration of the eyeball. The laceration, between the pupil and the outer canthus, extended from the reflection of the upper bulbar conjunctiva to the lower conjunctival reflection. A portion of the iris was protruding and waving. This I trimmed off and then fixed the flap into place. In ten days, the eyeball had a normal appearance with the exception of a small unpigmented V showing through the cornea, simulating the appearance, with the exception of location, of that following iridectomy.

The technique of the conjunctival flap operation is simple and, after becoming acquainted with the procedure, it may be accomplished in five or six minutes. For practice of procedure, an envelope slightly curled, both ends representing the eyelids and the inner layer of paper representing the conjunctiva, may be used. (See fig. 1.)

I prefer general anesthesia, although I have performed the operation by instilling butyn (2%) as a surface anesthesia, followed by slight infiltration of the site of the conjunctival flap with procaine. The movements of the lids and the difficulty in restraint in some patients are objectionable.

The procedure is as follows:

Incise the upper bulbar conjunctiva just above and parallel to its reflection upon the anterior surface of the eyeball. This is most easily accomplished by nicking the bulbar conjunctiva with a sharp pointed scalpel at a point midway between both canthi. The point of an iris scissors is then introduced into the nick and the incision is carried in two directions,—first toward one canthus and then toward the other for about $\frac{1}{4}$ in. to $\frac{3}{8}$ in., depending upon the desired width of flap from the nick as a central point. The cut edge of the conjunctiva is then grasped with forceps. Using the iris scissors, two parallel incisions

are made starting from each end of the first incision. These incisions are carried back through the bulbar conjunctiva into the palpebral conjunctiva close to its junction with the upper eyelid.

itated by grasping the membrana nictitans with a hook or forceps and pulling it out of the way. The eyelids are then made fast with three additional interrupted sutures using the same gut.

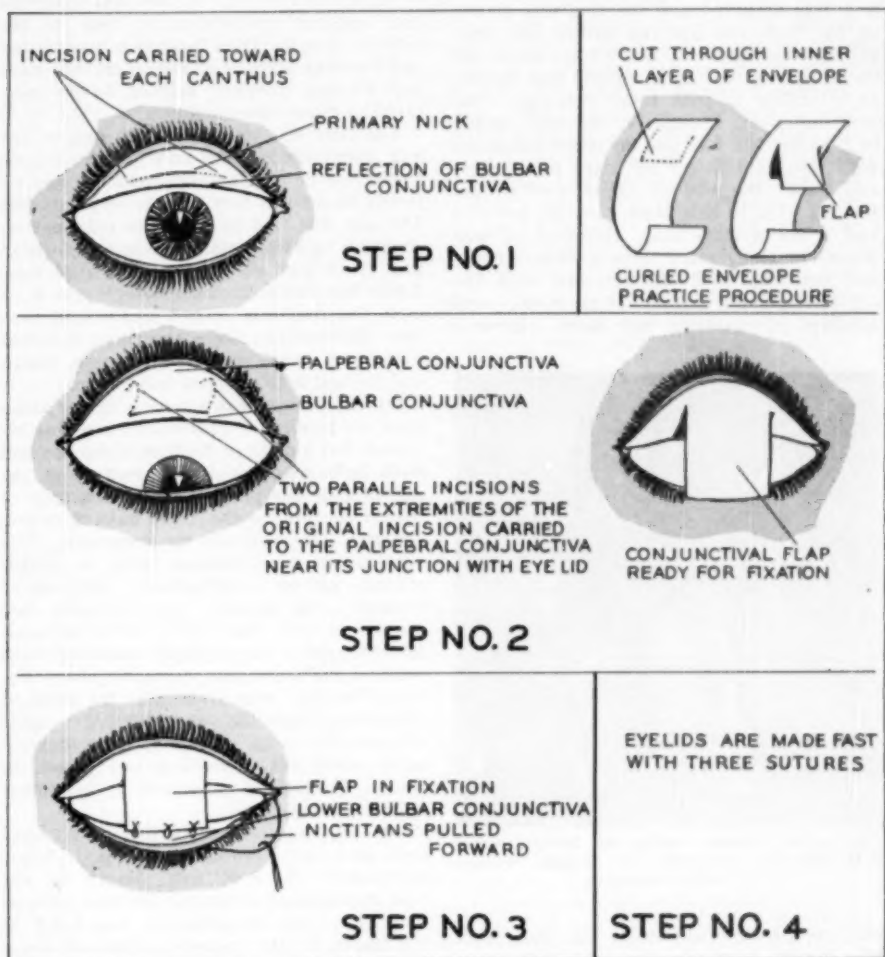


Figure 1

The conjunctival flap is now free for fixation, and suturing the free edge of the flap to the lower bulbar conjunctiva will place the vascular or inner surface of the flap in contact with the cornea. For suture I use 0000 catgut with fused eye needle. Three interrupted sutures are usually sufficient to hold the flap in place. The suturing is facil-

All sutures are left in place until they slough, which usually occurs in from six to eight days. Occasionally, one of the sutures holding the flap in place will fail to slough; if so, merely snip it. The flap needs no further attention. It will heal in proper adjacency.—Aaron I. Stern, D.V.M., Waterbury, Conn.

Surgical Relief of Impaction in the Newborn Foal

A University of California Thoroughbred mare gave birth to a male foal at 8:00 a.m., March 10, 1950. A normal parturition was observed and the foal was active, on his feet, and nursing within one hour after parturition. At 12:00 p.m., March 10, the foal was noticed straining and rolling as if trying to pass fecal material. The next morning, March 11, we were called to examine the foal and on rectal palpation with the index finger felt hard fecal material about the size of an almond in the rectum. Up to this time, the colt had not had a bowel movement. Mineral oil was placed in the rectum with a dose syringe and one fecal ball was removed with the aid of the index finger, but no success was attained in removing any more. Mineral



Fig. 1.—Foal, showing healing of incision in left flank following laparotomy and intestinal massage to relieve impaction.

oil was given orally with the hope that this would lubricate the impaction anteriorly.

At 11:00 a.m., March 11, the colt was still straining, and a soapy enema was given rectally with the removal of three or four fecal balls, the majority remaining in the rectum at the entrance of the pelvis. More mineral oil was placed in the rectum with an enema tube but with no success. At 1:00 p.m., 3 cc. of "peristaltin" was

given intramuscularly in hopes that this would increase contractions and aid in expelling the fecal material. This, also, was of no avail.

At 5:00 p.m., March 11, the foal was straining and rolling at frequent intervals and nursing intermittently. Due to the lack of results from previous medication and swelling of the tissues around the anus and rectum, surgery seemed to be indicated to relieve the condition.

The foal was shaved in the area of the left paralumbar fossa and flank. A local anesthetic of 2 per cent procaine was injected along the line of intended incision. The colt was laid on his right side and restrained by two students, one at the head and front legs and one at the hind legs. After the initial incision, which was 6 in. long, the area was draped with sterile towels. The muscles were separated by blunt dissection down to the peritoneum, which was incised with scissors and forceps.

On exploratory examination of the abdomen, no torsion or intussusception was revealed, but a mass of fecal material in small hard balls was felt in the rectum at the entrance of the pelvis. Gentle massage of the area, forcing the fecal balls forward, one at a time, relieved the impaction. The peritoneum was sutured with a double strand cotton, continuous, interlocking suture. The muscles were brought into apposition with interrupted cotton sutures, and the skin was brought together with vertical mattress sutures using heavy linen. The foal was given 600,000 units of crystalline penicillin and 1,500,000 units of penicillin in oil. The foal arose immediately after the operation and began to nurse. Mineral oil was placed in the rectum with a dose syringe.

At 11:00 p.m., March 11, the foal strained and had a yellowish semiliquid bowel movement. At 8:00 a.m., March 12, the foal had stopped straining and was nursing normally. His temperature was 101.8 F. On March 13, the foal was active and showing no ill effects from the operation, the temperature being 102.9 F. Penicillin was given for a week. The skin sutures were removed in ten days and the foal made an uneventful recovery.—*John H. Woolsey, Jr., D.V.M., Veterinary Clinic, University of California, Davis.*

Miami Beach is famous for cool summer evenings.

Estrous Cycle in the Mare

Estrus varied in length from two to forty days in 1,543 estrous cycles studied, with four days the most common length (*Cornell Vet. 40*, Jan., 1950). "Foaling heat" was observed in 93 per cent of the mares between five to eight days after foaling. Interestrus varies from two to fifty-nine days, and the variation makes it possible to miss about 50 per cent of the estrous periods by teasing only on specific days. The first day of estrus, or the second to the fifth day prior to termination of the estrous period, proved the most fertile time for breeding. Two or more covers during an estrous period produced only 3 per cent more pregnancies than did a single cover. Gestation periods varied from 312 to 365 days. Of 30 mares examined for ovulation, 40 per cent ovulated one day prior to the termination of estrus and 77 per cent ovulated during the last three days of estrus.

Torn Uterus in a Mare

On March 3, 1950, I was called to a breeding farm for dystocia in a Thoroughbred brood mare. Upon arrival, I found the foal was dead; head and front feet were presented. After examination, I discovered that the foal's hind legs were crossed under the body attempting to come through the cervix.

The mare was given a general anesthetic, the foal was repelled, and the hind feet pushed back through the cervix and straightened. Then, with moderate traction the foal was rather easily delivered. I was careful to keep my hand between the hind feet and the wall of the uterus at the time of delivery. A rather hasty, final examination was made of the uterus and sulfonamide uterine boluses were placed there.

On March 4, I returned to see this mare, and upon examination of the uterus, found a large quantity of clotted blood and about a 4-in. hole in the body of the uterus, on the floor, near the brim of the pelvis. I am not certain whether this tear occurred at the time of delivery of the foal or before I arrived, when a great deal of traction was put on the foal in an attempt to deliver it. Nevertheless, it was there.

I decided to attempt to repair the uterus with little hope for eventual recovery of

the mare. I carried a large curved needle with heavy chromic catgut into the uterus, and after some little time was able to get four interrupted sutures through the tear, using a whole length of catgut for each suture. I was forced to work with both arms in the cervix when tying the knots.

The after-treatment consisted of placing large quantities of sulfonamide preparations in the uterus about three times a week. Some peritonitis which developed was controlled with penicillin. One and a half million units of penicillin were given on March 6, 8, and 11. Posterior pituitary extract was given on March 8 in an effort to expel some of the fluid present in the uterus. On March 15, 15 cc. of pyribenzamine was given.

On March 21, a final examination was made. The tear was completely healed and the genital tract was clean and in good shape; the mare was eating well and recovering nicely.

I have found little reference to the torn uterus in surgical literature. The statement is made that it is highly fatal. I had an identical case on a previous occasion, and the mare was destroyed without an attempt to repair the tear. Now, I know these cases can be handled successfully.—*G. G. Meredith, V. M. D., Kingsville, Md.*

Failure of Ovulation.—Failure of ovulation causes 10 to 15 per cent of all sterility in the human female. The finding, which is based on critical studies, justifies the use of gonadotropic hormone as a routine measure during the anovulatory cycle. Assuredly, the customary use of estrogen therapy will not meet with important contraindications in the treatment of baffling bovine infertility.

The dry cow should be well fed, because the fetus makes two thirds of its growth during the last sixty days of pregnancy, and because each pound of weight gained by the cow will mean about 25 lb. of additional milk during the succeeding lactation period.

Many repeat breeder cows actually conceive but the embryos die before the thirty-fourth day of pregnancy.—*S. H. McNutt, D.V.M., Wisconsin.*

Proper restraint of animals not only protects the surgeon but also makes it possible to perform good surgery.—*D. E. Trump, D.V.M., Minnesota.*

CLINICAL DATA

Clinical Notes

In feedlot lambs, sudden deaths from scouring should arouse suspicion of overeating.—*Frank Thorp, Jr., D.V.M., Michigan.*

A swine raiser in North Carolina reports that the administration of hog cholera antiserum on three successive days saved pigs even when visibly sick.

The practicing veterinarian must learn to handle every animal carefully, realizing that it represents personal property of the client.—*W. M. Coffee, D.V.M., Kentucky.*

The general practitioner should encourage his dairyman clients to breed to the best bull possible and to keep a record of breeding dates.—*A. H. Groth, D.V.M., Missouri.*

Records indicate that 10 per cent or more of pigs properly vaccinated with adequate amounts of potent serum and virus do not develop a serviceable immunity against hog cholera.—*L. M. Hutchings, D.V.M., Indiana.*

The value of the Brucella ring test rises as the rate of brucellosis infection drops.—*M. H. Roepke, Ph.D., Minnesota.*

That New Swine Plague.—"Watch out for a new menace to hams and pork chops" is the way *Successful Farming* broadcasts the warning. Reports indicate that an atypical type of cholera is confusing the practitioners of the Corn Belt and beyond.

Streptomycin in Glanders.—One bacillary infection that most assuredly responds to streptomycin is glanders. In culture medium or living body, the drug is currently reported to possess marked germicidal action against *Malleomyces mallei* that is far superior to its action against *Salmonella enteritidis*, *S. gallinarum*, *S. abortus equi*, and *S. pullorum*, in laboratory tests.—*Abst., Rec. méd. vét., 136, (Jan., 1950): 45.*

White scours in pigs may be either infectious or nutritional, and they both look alike.—*A. W. Krause, D.V.M., Iowa.*

In the control of mastitis, good animal husbandry practices are more important than adequate veterinary service. In other words, it is primarily a dairyman's problem.—*W. J. Gibbons, D.V.M., Alabama.*

The finding of megaloblastic-like cells in the bone marrow of a pig exposed to atomic radiation suggests that swine may be more suitable than other experimental animals for pernicious anemia studies.—*Yale J. Biol. and Med., Oct., 1949.*

Umbilical hernias in baby pigs a week or two old may frequently be corrected by applying fuming nitric acid to the surface of the skin after placing a ring of vaseline or grease around the ring. If the first treatment does not produce the desired result, it may be repeated in a week.—*A. W. Krause, D.V.M., Iowa.*

Terramycin.—Terramycin is a new antibiotic from *Streptomyces rimosus* (*Science*, Jan. 27, 1950). It is believed to be of low toxicity and can be given orally or parenterally. Preliminary experiments are searching its usefulness against several bacterial, rickettsial, and viral infections.

Hyperkeratosis Conference

Research workers on bovine hyperkeratosis met at Lincoln, Neb., on May 2 and 3 to discuss the nature of the experiments being conducted and to compare notes on the present status of knowledge of the disease.

By a vote of those attending the conference, it was decided that no report should be released by the group, but that each worker or institution would release information at the time and in the manner chosen.

Nitrofurazone—A Practical Antibacterial Agent for Bovine Mastitis

M. H. MIRES, D.V.S.

Sherburne, New York

RECENT developments in the chemotherapy of bovine mastitis as an adjunct to proper herd management offer much promise in the eventual control of this important disease. However, the multiplicity of therapeutic preparations suggests that, at present, none may be thoroughly satisfactory.

Although the effectiveness of some of these preparations appears to be supported by sound experimental study, certain of their physical characteristics are so disadvantageous as to make their use impractical under field conditions for the practicing veterinarian. Such practical disadvantages are not likely to become apparent under the ideal conditions with which many preparations are tested.

To a practicing veterinarian like myself, engaged almost entirely in the care of dairy cows in a climate where a temperature of -40 F. is not unknown, a mastitis remedy—our most often used medicament—should have the following characteristics.

It must be stable to all environmental temperatures. Winter temperatures alone forbid use either of a purely aqueous solution or of water as a diluent for a powdered drug, because of freezing and breakage. The extreme increase in viscosity of other mediums in very cold weather likewise makes them impractical even where actual freezing does not occur. I have likewise found it extremely awkward to have to mix a dry drug with its diluent while attempting to maintain sterility under average working conditions, especially with fingers that are numbed and clumsy with cold.

Having been favorably impressed with the efficacy of the antibacterial agent furacin (brand of nitrofurazone N.N.R.) in treating surface infections of animals, I conceived the idea of using a solution of furacin for mastitis. Consultation with the manufacturers revealed that there was no apparent contraindication to such use.

At my request, the manufacturers, Eaton Laboratories, Inc., tested the drug *in vitro* against the most important organisms of mastitis. The test consisted of determining the minimal concentrations of furacin in broth which would limit growth of the organisms to half that of the control within twenty-four hours, determining the results macroscopically. The results were as follows:

Organism	Minimal 24-hour bacterio-static concentrations of furacin in broth
<i>Streptococcus agalactiae</i>	1: 20,000
<i>Streptococcus uberis</i>	1: 100,000
<i>Staphylococcus aureus hemolyticus</i>	1: 20,000
Coliform bacteria	1: 40,000

The results indicate that furacin is effective in high dilutions against the most important organisms of mastitis *in vitro*. Such effective concentrations are far below those used clinically (0.2%). Hence, considerable dilution of the dose of furacin with milk can occur without reducing it to ineffective levels. Previous investigations had revealed that the drug actually is bactericidal to the majority of organisms of surface infections.¹

The manufacturers then supplied me with a solution of furacin 0.2 per cent, dissolved in a water-miscible vehicle composed of water, 34.8 per cent, and polyethylene glycols. In extremely cold weather, this solution will sludge. However, immersion of the bottle in a pan of warm water for five minutes, to bring it near body temperature, restores its normal characteristics. The solution is also stable at the highest summer temperatures.

I began the use of this solution experimentally and cautiously, first in cows that had proved refractory to all other types of treatment used and were destined for slaughter. From experience gained with these, treatment was extended to other cattle with varying degrees of intensity of mastitis, varying the amount injected and the number of doses administered as well as the dosage intervals.

In this article, the term "acute mastitis" refers to mastitis of very recent onset (3 to 5 days), as diagnosed in the field by abnormal appearance of the milk, usually with a positive bromthymol blue test, and with or without gross inflammatory changes in the udder.

The term "chronic mastitis" refers to the above symptoms which have persisted for at least two weeks, and usually longer, often with permanent abnormalities in the udder such as induration.

A preliminary report on the results of

these early studies has been made.² This dealt with 58 quarters of 18 lactating cows with chronic mastitis and 300 quarters with acute mastitis. In the acute cases, about 90 per cent recovered; in the chronic, 88 per cent.

Since this report, I have treated, with excellent results, more than 10,000 cows with mastitis, over a period of two and one-half years. The results of this study are summarized below.

TREATMENT OF MASTITIS WITH FURACIN

Technique.—It is of utmost importance that the veterinarian select with care the cases to be treated, on the basis of experience with this material. The best results are obtained in treating acute mastitis, and in treating dry cows with a history of mastitis during their previous lactation. Although occasional cases of subacute mastitis may be benefited, furacin is not fully effective in chronic mastitis.

The dose of this solution is 25 cc. per quarter, injected with the usual sterile syringe and mastitis needle after sterilizing the teat orifice. This is followed by vigorous massage of the udder.

In acute mastitis, an injection is made immediately after a milking and is allowed to remain until the next milking, twelve hours later. This dose is repeated at intervals of three or four days if necessary. From one to four injections are usually adequate to obtain clinical recoveries as evidenced by macroscopic examination of the milk and negative bromthymol blue tests and by the usual clinical improvement, such as disappearance of edema of the udder. This is not merely a temporary improvement, as occurs with some remedies, but is usually maintained.

When four injections per quarter do not produce the requisite benefit, I consider the case a failure.

In dry cows with a previous history of mastitis, one injection is made six to four weeks prior to the next lactation and allowed to remain in the quarter. In case the milk during the first few days of lactation is not satisfactory, I consider the treatment a failure and proceed to treat the cow as for acute mastitis, as outlined above.

With this technique, I have never observed any signs of irritation of the udder, such as increased inflammation, soreness, edema, or blood in the milk. There is no reduction in milk flow following an injection.

RESULTS

A total of 7,123 lactating cows with acute

mastitis have been treated with furacin. Results varying from fair to excellent were obtained in 5,597 of these (78%). Poor or no results were obtained in the remainder.

Among 3,418 dry cows treated, all having had mastitis during their previous lactation period, fair to excellent results were obtained in 3,104 cases (90%). No results or poor results were obtained in the remaining cases.

CONCLUSIONS

Although a higher percentage of efficiency may have been reported in carefully controlled studies with other antibacterial agents for mastitis, I feel that the above results obtained with furacin solution veterinary (Eaton Laboratories, Inc.) under field conditions are excellent. They are definitely superior to those I have obtained with many other preparations.

I am aware that many investigators define mastitis as the presence of certain pathogenic bacteria in the milk, irrespective of clinical symptoms, appearance of the milk, or the bromthymol blue test. As a practicing veterinarian, however, it is impractical for me to diagnose mastitis except by the gross clinical criteria and simple field tests mentioned.

The manufacturers inform me that in strictly controlled bacteriologic tests, furacin solution veterinary appears to cause complete disappearance of *Streptococcus agalactiae* from the quarter only in little over half of the cases of chronic mastitis, and it may be even less effective against other organisms such as *Staphylococcus aureus* and *Streptococcus dysgalactiae*. Although this is undoubtedly the case, yet, to a practicing veterinarian like myself, this objection is of negligible importance. If clinical recoveries are obtained, as judged by symptoms, appearance of the milk, and the bromthymol blue test, and if the milk easily passes the bacteriologic control tests of the milk station, as it does in 99 per cent of the cases, certainly the owner and the veterinarian may not be blamed for being well satisfied with the results.

A comparable example may be drawn from human medicine. No physician would diagnose a person as having pneumonia, merely because a bacteriologist can demonstrate, as often occurs in normal subjects, the presence of pneumococci in the throat or sputum. Only when a person shows certain symptoms does the physician call it pneumonia. Even then, if bacteria are not demonstrable, he may suggest a viral origin but still insists that the patient has pneumonia. I consider that the situation in bovine mastitis is identical.

I am not interested in attempting to attain sterility of the milk; in fact, if such were produced, I believe it would result in an unusual, and hence undesirable, flavor.

SUMMARY

A solution of furacin has been used by intramammary injection as an adjunct to proper herd management in the treatment of clinical bovine mastitis in more than 10,000 cows under field conditions. Good results were obtained in 78 per cent of cases with acute, clinical mastitis and in 90 per cent of dry cows with a history of mastitis in their previous lactation period. The technique of administration and the practical advantages of this drug in the field are discussed.

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How Sulfonamides Act

The action of sulfonamides is usually explained by saying that their bacteriostatic effect is exerted through reaction with one or more enzyme systems of the bacteria. In line with this general statement, sulfanilamide does diminish the catalytic activity of catalase, inhibits the activity of peroxidase, has a similar effect on cholinesterase, and also upon luciferase. Some of these actions may be reversible, usually under changes in temperature.

It has been said that the sulfonamide drugs interfere with, or block, a bacterial enzyme system which is specifically concerned with respiration of the cell. This denaturation occurs because the sulfonamides are competitors with essential metabolites for an enzyme. When sulfonamides decrease the catalytic activity of enzymes, this does not always lead to an impairment of activity. Sometimes the growth of organisms is stimulated.

The coaction of sulfonamides with other drugs may be either as antagonism or as potentiation. The substances which antagonize the sulfonamides are various, simple, organic compounds and complex proteins. The best known antagonistic compound is *p*-amino-benzoic acid. At temperatures of 37 C. or lower, this substance

accelerates the growth of *Escherichia coli*. When the temperatures are raised slightly above 37 C., the drug has a marked toxic effect on the organism. Various protein substances, such as serum, crystalline egg albumin, and humin exert inhibitory action by affording additional sulfonamide-receptive groups and thus effectively diluting the sulfonamide.

The specific manner in which the sulfonamides affect the bacteria may be that they alter the nature of the cell wall and its permeability. This again is done through one of the enzyme systems.

The authors believe that other drugs will be found which are either more strongly adsorbed than the sulfonamides or become adsorbed at other positions. These substances may be either potentiators or inhibitors, depending upon their nature. Some will protect the enzyme from sulfonamide activity, while others will enhance the invasiveness and bacteriostatic properties of the sulfonamides.—S. W. Lee and E. J. Foley in *J. Am. Pharm. A.*, 33, March, 1944:82-84.

Sulfone Compounds

The response of leprosy to promin (glucosulfone sodium) has turned attention to the sulfone compounds, as they take their place among the antibiotics and sulfonamides as germicides and bacteriostatics. Although not as yet mentioned in veterinary medicine, the curative action in leprosy and its action against Koch's bacillus, *in vitro*, promise to give the sulfones a high place in medicine.

The sulfones are too toxic for use alone, but in the combinations recommended the parent molecule is not injurious because, within limitations, it is slowly liberated *in vivo*. According to Boyer and Saviard (*Ann. Inst. Pasteur*, Dec., 1949), promin, diasone, and sulfetrone, which are essentially alike chemically, are only 1/50 to 1/20 as toxic as the parent substance, and no less potent medicinally.

Veterinarians should do more dispensing in order to encourage animal owners to come in and consult regarding diseases. Not only will this render a better service to animal owners, but it will reduce drug store merchandizing.—R. J. Beamer, D.V.M., Iowa.

Moniezia Infection in a Calf Herd

R. P. LINK, D.V.M., M.S., NORMAN D. LEVINE, Ph.D., A. G. DANKS, D.V.M., and
E. A. WOELFFER, D.V.M.

Urbana, Illinois

MONIEZIA infections have been reported in ruminants by many authors. No effective treatment was known for this infection until lead arsenate was introduced by McCulloch and McCoy in 1941. Since that time, its value in the treatment of infected sheep has been reported by Radeleff² (1944), Habermann and Carlson³ (1946), Ward and Scales⁴ (1946), and Allen and Jongeling⁵ (1948). It was found effective in infected calves by Radeleff (1944). Foster and Habermann⁶ (1948) reviewed the literature on the use of lead arsenate against *Moniezia*.

Heavy *Moniezia* infections are relatively uncommon in cattle. Little has been reported on the use of lead arsenate as a teniacide in cattle. This report deals with an extensive outbreak of *Moniezia* infection in calves and the results of lead arsenate therapy.

CASE REPORT

According to the owner of the herd, the condition had existed since 1945. Calf scours and pneumonia had caused severe losses on this farm at one time, but changes in management and the use of prophylactic measures eliminated these problems several years prior to the appearance of the tapeworm infection.

In 1945, 4 of the 85 calves in the herd were emaciated and grew slowly. None died, but 1 of the heifers which was kept in the herd remained stunted. In 1946, 20 of the 82 calves died after showing similar symptoms. In 1947, approximately half of the 87 calves developed similar symptoms and died. Each year, the symptoms developed about one month after the calves had been turned onto a pasture near the calf barn. A few calves which were born in another pasture about a mile from the barns

did not become affected until after they had been transferred to the calf pasture.

Sheep had never been kept on the farm, but cattle were occasionally added to the herd.

The affected calves lacked strength and vigor; the coats were rough. Although the calves had voracious appetites and were receiving whole milk in addition to calf meal and alfalfa hay, they appeared stunted. They were anemic, pot-bellied, and had profuse diarrhea. Most of the calves developed a nasal discharge and cough soon after the onset of the other symptoms. Pneumonia was probably a contributory cause of death. Several different treatments had been administered to the affected calves without success.

At the time the herd was first observed in 1948, 19 calves of 79 in the herd had died. Of the remainder, 42 were sick. All were less than 6 months old. No evidence of tapeworm infection was observed in any of the mature animals in the herd. One 11-month-old heifer that had been affected since early summer was present in the herd. Although she was being fed well, she was emaciated and weak and required assistance to rise and stand.

An autopsy was performed on a typically affected 3-month-old calf. Areas of congestion were observed in the lungs. The small intestine was markedly inflamed and contained numerous tapeworms. Thirty-two scolices were counted. The tapeworms were identified as *Moniezia expansa*; identification was confirmed by Dr. Dale A. Porter of the USDA Regional Animal Research Laboratory, Auburn, Ala.

The entire group of 59 calves, and the older heifer, were treated with lead arsenate. The dose ranged from 0.5 to 1.5 Gm., depending on the size of the animal. For the next three days, great numbers of tapeworm segments were passed in the feces. Two of the most severely affected calves died the day after treatment, but it is not known whether these deaths were due to the toxic action of the drug.

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Dr. Danks is now a member of the faculty of the New York State Veterinary College, Cornell University, Ithaca, N.Y., and Dr. Woelffer is now located at Oconomowoc, Wis.

The yards and calf barn were thoroughly cleaned and the calves were not allowed further access to the pasture they had been grazing.

Within a few days, marked improvement was noted in the condition of all calves which had shown symptoms of tapeworm infection. They recovered progressively, developed normally, and remained healthy.

Calves born on the farm during 1949 were not allowed access to pasture, and none developed symptoms of tapeworm infection.

SUMMARY

An extensive outbreak of *Moniezia expansa* infection in dairy calves is reported. Out of a herd of 79, 19 had died, and 42 were emaciated, lacked vigor, and grew slowly. Treatment with lead arsenate removed the tapeworms and permitted the calves to make an uneventful recovery.

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Iowa Brucellosis Control Committee

Iowa has a statewide brucellosis-control program which will be under the direction of a strong control committee. This committee has adopted the basic four-point program so generally accepted after it was formulated by the U. S. Livestock Sanitary Association. However, they have agreed to concentrate on a calfhood vaccination portion of the program for the time being.

The state committee plans to organize county brucellosis committees, and it will recommend that the following county leaders be invited to participate in the meetings and serve on the county committees: extension director and home economist, the farm bureau field man and women's com-

mittee chairman, county nurse, the D.H.I.A. supervisor, representatives of the county health council, vocational agriculture instructors, boards of supervisors, artificial insemination associations, local veterinarians, editors, legislators, and others directly or indirectly concerned with human or animal health. Eventually, it is expected that local committees will also be formed, and it appears certain that Iowa will make some progress on the eradication of animal brucellosis.

M Vaccine Studied by National Brucellosis Committee

The National Brucellosis Committee, dedicated to the control and eradication of brucellosis in livestock, made the following remarks on Brucella M vaccine (mucoid phase of *Brucella suis*) in January, 1950, following a study of the product by its subcommittee on research:

Advantages.—It does not cause false positive reactions to the blood test, as does strain 19; minor reactions that sometimes occur with the M vaccine soon disappear. Both vaccines cause a slight drop in milk production for a few days, but the reduction probably is less with M vaccine.

Disadvantages and Questionable Points.—Favorable reports have not been supported by adequately controlled experiments; infectivity for human beings is unlikely but proof is awaited; should the M vaccine germs revert to their true disease-producing form, which is possible but not probable, vaccinated cows would then be infected with swine brucellosis, which is of graver public health concern than *Brucella abortus* infection; the discoverer's claim that production is complex suggests that if the vaccine should be released for general use, commercial producers might have trouble in making it; at present, only Michigan State College laboratories produce it, and they have not revealed the formula or manufacturing techniques.

The Committee concluded that "until reasonably accurate information is available, some patience is necessary."

Most general practitioners can afford to engage in brucellosis-eradication programs if they organize their work effectively and employ some lay assistants to keep records and attend to some other phases of the work.—A. Orum, D.V.M., Illinois.

Carinamide Studies in Cattle

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THE RAPID renal elimination of penicillin constitutes one of the most serious limitations to its use. The elimination is by both glomerular filtration and tubular excretion. The penicillin clearance approximates renal plasma flow; that is, little or no penicillin remains in the blood after a single circuit through the kidney.¹ In man, when a normal relationship exists between glomerular filtration rate and renal plasma flow, about 20 per cent of the total excretion of penicillin per unit time is by glomerular filtration. The remaining 80 per cent is excreted by the kidney tubules.

One principle that has been applied to prolong penicillin-plasma concentrations is to inhibit or delay tubular excretion of the antibiotic agent. Then, the only pathway remaining is one that normally accounts for only a small percentage of the penicillin excretion, and there results a considerable enhancement of the penicillin concentration of the plasma. Compounds such as para-aminohippuric acid² and diodrast³ that are excreted by the same tubular transport mechanism as penicillin will, in large intravenous doses, competitively inhibit tubular excretion of penicillin. Their use for this purpose is not practical, however, because they are so rapidly excreted. Carinamide (4'-carboxyphenylmethanesulfonanilide), a compound introduced by Beyer,⁴ competitively inhibits the same tubular transport mechanism and is itself refractory to tubular excretion. It, therefore, represents a new concept in tubular inhibition of penicillin excretion.

The over-all pharmacology of carinamide in dogs has been investigated.⁵⁻⁹ These studies showed that the tubular excretion

of para-aminohippurate, diodrast, and phenol red, in addition to penicillin, is inhibited. Other renal tubular functions studied were not influenced at doses completely suppressing penicillin tubular excretion. Carinamide was found to be excreted essentially by glomerular filtration. At therapeutic doses, the compound had no significant effect on kidney volume, arterial blood pressure, heart rate, or respiration. Histologic study of various tissues revealed no definite evidence of tissue damage at doses tested. The intravenous acute *i.d.*₅₀ was approximately 1.5 Gm. per kilogram, indicating a low order of toxicity for the dog.

It was considered worthwhile to evaluate the compound in species other than the dog. Work in horses recently has been reported.¹⁰ The present report describes a study of the use of carinamide in cattle.

CARINAMIDE IN CATTLE

The plan of the experiment was to determine the falling plasma concentration of penicillin without carinamide, and after

TABLE I—Effect of Carinamide on Plasma-Penicillin Concentration (Oxford Units per cc.) in Calves Following Single Intramuscular Injection of 1,000 Units per Kilogram of Sodium Penicillin G in Aqueous Solution

Carinamide Dosage and route of administration/ $\frac{1}{4}$	Sampling time in hours after injection of penicillin				
	1	2	4	8	8
None	0.27 (6)*	0.47 (5)	0.083 (6)	0.029 (4)	0.019 (2)
30 mg./kg. 1.3 intravenously (6)	0.36 (6)	0.067 (6)	0.026 (3)	.....	.....
60 mg./kg. 1.6 intravenously (6)	0.48 (6)	0.18 (6)	0.029 (6)	.....	0.003 (6)
120 mg./kg. 1.7 intravenously (6)	1.2 (6)	0.21 (6)	0.12 (4)	.....	0.016 (2)
250 mg./kg. 1.3 intravenously (3)	1.3 (3)	1.2 (3)	0.22 (3)	.....	0.039 (2)
500 mg./kg. 2.8 intravenously (3)	2.5 (3)	1.5 (2)	1.2 (3)	.....	0.37 (2)
250 mg./kg. 0.99 per os (3)	0.25 (3)	0.11 (3)	0.031 (3)	.....	0.016 (3)
500 mg./kg. 0.95 per os (3)	0.25 (3)	0.11 (3)	0.031 (3)	.....	0.016 (3)

*Figures in parentheses indicate number of values averaged.

In assaying some samples the dilutions used were not in the range. Therefore, fewer values are averaged in some cases than in others.

From the Medical Research Division, Sharp and Dohme, Inc., Glenolden, Pa.

The spelling of carinamide has been changed to carinamide by the Council on Pharmacy and Chemistry of the American Medical Association, because of the similarity of the older name to another compound.

The authors express sincere appreciation to Dr. Karl H. Beyer, director, Pharmacological Research, Sharp and Dohme, Inc., for helpful suggestions.

progressively increasing single oral or intravenous doses of the drug until toxic manifestations appeared. The object was to determine the therapeutic and toxic dose range for cattle. Six dairy breed calves ranging in weight from 225 to 500 lb. were used in the study. One thousand units of sodium penicillin G (in aqueous solution) per kilogram of body weight were injected intramuscularly one hour after the oral administration, or immediately after the intravenous injection, of carinamide. At the stated intervals, blood samples were taken and the plasma was assayed for penicillin by a modification of the Rammel-

TABLE 2—Average Plasma-Carinamide Concentrations (mg./100 cc.) in Calves Following a Single Oral or Intravenous Administration

Intravenous carinamide— 10 per cent solution, sodium salt	Sampling time in hours after injection of carinamide				
	1/4	1	2	4	8
30 mg./kg.	5.0 (5)*	1.4 (5)	—	—	—
60 mg./kg.	23.2 (6)	5.6 (6)	2.5 (6)	—	—
120 mg./kg.	37.0 (6)	16.1 (6)	4.1 (6)	1.4 (5)	<1.0 (6)
250 mg./kg.	265 (5)	59.0 (5)	38.3 (5)	6.9 (5)	1.0 (3)
500 mg./kg.	455 (5)	211 (5)	101 (5)	71.8 (5)	43.3 (2)

Oral Carinamide— 20 per cent tragicanth suspension	Sampling time in hours after administration of carinamide				
	1/4	2	5	5	9
250 mg./kg.	1.1 (3)	1.3 (3)	1.3 (3)	0.8 (5)	0.7 (3)
500 mg./kg.	1.7 (3)	1.7 (3)	1.5 (5)	1.2 (5)	0.7 (3)

*Figures in parentheses indicate number of values averaged.

kamp^{11,12} tube-dilution method. The same plasma samples were analyzed for carinamide by a method developed by Ziegler and Sprague.¹³ The method does not distinguish between metabolically changed and unaltered drug.

The plasma-penicillin assays and plasma-carinamide analyses are summarized in tables 1 and 2. There is a definite enhancement of plasma-penicillin concentrations following the intravenous injection of carinamide in the dosage range used. Orally, however, therapeutic blood levels were not reached even following high doses. This is surprising, since it is well absorbed from the gastrointestinal tract of dogs and man.

The toxicity studies indicate that carinamide is more toxic in cattle than in

other species studied. In intravenous doses below 250 mg. per kilogram, no toxic reactions were observed. Definite toxic reactions, but no deaths, occurred in the 3 animals receiving 250 mg. per kilogram, while the 500-mg. per kilogram intravenous dose killed 3 out of 3 calves. The clinical picture in the toxic dose range was qualitatively similar in all animals. About four hours after the administration, they appeared depressed and restless. Two to three hours later, there developed a disturbance in equilibrium, muscle tremors, and, terminally, in the 500-mg. per kilogram group, severe generalized tonic-clonic convulsions. One of 3 animals that received 250 mg. of carinamide per kilogram intravenously had a short convulsive seizure eight hours after the administration, but it recovered. Following oral administration, no definite toxic reactions occurred at any dose up to 250 mg. per kilogram. At the 500-mg. per kilogram oral dose, which was the highest tested, there was a very mild toxic reaction in 3 out of 3 animals. About four hours after the administration, they appeared depressed. They stood quietly and did not eat or drink. In about four hours, they were normal again. Table 2 indicates that absorption from the gastrointestinal tract was limited, the highest average plasma concentration being only 1.7 mg./100 cc.

It is possible that the toxic reactions following oral administration were due to gastrointestinal irritation. This is suspected because the very limited absorption from the gastrointestinal tract makes it appear unlikely that the toxic reactions were systemic. A second fact consistent with this interpretation is that carinamide in high oral doses in man may cause nausea and vomiting. Symptoms of indigestion in calves can be similar to those observed here. In view of these facts, local gastrointestinal irritation is believed to be the most reasonable explanation of the oral toxicity.

Microscopic studies of tissue from the animals receiving 500 mg. per kilogram intravenously showed a passive hyperemia and edema in the tissues examined, including the central nervous system tissue. The cause of death could be attributed to a generalized vasomotor collapse resulting in widespread loss of fluid into the extravascular tissue.

SUMMARY

The therapeutic and toxic dose ranges of carinamide were determined in calves. Intravenously, the margin between therapeutic and toxic doses is narrower in cattle than in the dog. The compound is poorly absorbed from the gastrointestinal tract of cattle. The possibility that toxic reactions following oral administration were due to gastrointestinal irritation is discussed. At well-tolerated intravenous doses, carinamide enhanced plasma-penicillin levels.

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Iron Tonics

Based on clinical observations, the need of iron in equine practice has long been recognized by experienced practitioners. No "condition powder" for horses was regarded complete without sulfate of iron, and the administration of tincture of iron chloride to convalescent patients was thought indispensable following protracted illness. No similar custom ever developed in bovine, porcine, and canine medicine. As a matter of fact, little iron was ever recommended in these branches of veterinary medicine. In man and animals of higher life, so little iron is eliminated by the urine and feces that iron was said to be "locked in the body," yet an intake of a certain amount far in excess of that eliminated was known to be essential to good health.

The whole mystery of somatic iron was explained in recent studies showing that important amounts of iron are constantly excreted by the skin—by sweating. At rest or under normal conditions, the skin of the human adult removes 0.3 mg. of iron from the body per hour and 1.3 mg. per hour in hot humid environment. The amount eliminated by the sweating of the laborer remains to be determined. Assuming that these findings may be applied to the ever-sweating horse, the demand for iron by the equine species perhaps needs no further explanation. "Recent Studies of Iron" (*J. Am. M. A.*, March 25, 1950) is the source of this information.

Soil Moisture in Relation to Cattle Grubs.

—Experiments at the Veterinary Research Institute in Mukteswar, India, have reemphasized that the cattle grub problem varies inversely with soil mixture. These studies showed that maximum development of *Hypoderma lineatum* occurs where soil moisture is 1 to 5 per cent, and that flies did not emerge from pupae kept at a soil moisture of 15 per cent and above.—*Indian J. Vet. Sci. & Anim. Husbandry*, March, 1949.

Old and debilitated cows frequently respond to the repeated injection of liver concentrates. This is true in those instances where there appears to be no organic trouble but just a general debility and rundown condition.—*J. T. Foley, D.V.M., Illinois*.

NUTRITION

Feeding Thyroprotein

Interest in the use of thyroid-active substances in animal production has been stimulated by studies (J. T. Reid, Cornell University) which showed that thyroidectomy depresses growth, lactation, and egg production. Companion studies have shown that a mild hyperthyroidism is accompanied by an increased rate of growth in at least some species and an increase in egg production by the hen. This condition also stimulates milk and fat production in dairy cows.

DAIRY CATTLE

The feeding of iodinated casein (protomone) increased the milk yield in old cows more than it did in young cows in an experiment reported by Blaxter and involving 1,164 cows. The increase in yield varied widely with the stage of lactation and the normal producing ability of the cow. Response was greater after the cow had reached the peak of production and had begun to decline. The feeding of iodinated casein will not make normally high producing cows from those that are otherwise low producers.

The increased milk yield which results from the feeding of iodinated casein is occasioned by the consumption of larger amounts of feed. Unless extra feed is supplied, the milk flow will not be increased. This same principle is embodied in the finding that underfed cows are poor subjects for the use of iodinated casein, whereas normally fed cows are fairly good, and well-fed cows are the best, subjects.

The percentage of fat in milk is increased along with the amount of milk. In fact, as the milk is increased from 5 to 20 per cent, the fat yield in these same cows is increased 25 to 50 per cent.

The milk produced by thyroprotein-treated cows does not stimulate thyroid activity in persons who drink the milk.

The effect of feeding iodinated casein on the reproductive cycle has not been definite-

ly established, but one report indicates that cows so fed are slow to come in heat. Iodinated casein fed to old bulls appears to increase vigor and libido and to improve the rate of conception as well as semen quality. The major hazards in feeding thyroprotein are to avoid the excess stimulation which results from overfeeding. Since there is a wide variation in the tolerance which individuals have to this substance, the animals being fed iodinated casein must be watched rather carefully.

EFFECTS OF OVERFEEDING

Some of effects which may be seen from pronounced hyperthyroidism caused by feeding excessive quantities of iodinated casein are body weight losses, increased heart and respiration rates, damage to the heart, and increased loss of calcium from the body. A fairly well-established basic procedure indicates that when 15 Gm. of iodinated casein are fed daily and the feed is increased to 125 per cent of the normal supply, there will be an increased quantity of milk, and normal body weight will be maintained. Because the cow is a non-sweating animal, heat loss becomes a factor in the use of this substance. The added stimulation of thyroprotein treatment increases heat production and this in turn increases the frequency of respiration. Under conditions of high temperature and high humidity, there may be some physiologically detrimental effects from the feeding of otherwise normal amounts of iodinated casein. At the present time, the feeding of thyroprotein to cows being officially tested is prohibited by the breed registry associations, but it is permitted under the Dairy Herd Improvement Association rules. Although some figures indicate that the net returns from sale of milk and butter fat from cows being fed iodinated casein may be increased as much as 10 to 30 cents per cow per day, this amount may be counter-balanced by some of the effects which will appear in the cow

later in life. These lifetime effects are not yet known nor understood.

Pigs

In pigs, the feeding of iodinated casein stimulates an increased rate of gain in body weight when rations are supplemented with thyroprotein and are increased to accommodate the extra stimulation in appetite and body metabolism. Some workers have reported that the feed consumed is used more efficiently, but this would seem to be more apparent than real, since it may be accounted for by reduced maintenance requirements in that the pigs mature in a shorter time and, therefore, consume all of their feed in fewer days, thus requiring maintenance for the lesser number of days only. When used for pigs, iodinated casein should be fed beginning at an age from 6 to 8 weeks or after weaning. It should also be remembered that the increased rate of growth may mean creating a need for additional amounts of certain limiting nutritional factors which may otherwise be deficient.

POULTRY

For poultry, two factors need to be considered: stimulated rate of growth and an increase in production. The response obtained may depend upon the dosage of thyroprotein and also on the age, sex, breed, and strain of poultry. Some reports have indicated that there was a reduction in egg size but an improvement in the quality of egg shell. Thyroxine is not transferred to the egg, and the people eating the eggs are not endangered.—*Cornell Nutrition Conference, Nov. 3, 1949.*

Soft-boiled eggs are a good source of high grade protein for sick and convalescent dogs.—*W. F. Irwin, D.V.M., Oklahoma.*

A deficiency of amino acids, especially tryptophane and lysine, should be suspected when pigs deprived of animal protein are slow-growing and fail to utilize their feed efficiently.

When phosphorus deficiency is severe, we find anorexia rather than the depraved appetite which we have come to associate with this condition.—*F. C. Fountaine, Ph.D., Missouri.*

Vitamin A

The vitamin A in a mixed ration and in ground white corn samples containing codliver oil was not stabilized by storage in sealed containers (gas-tight) at different moisture levels, nor did the removal of enclosed oxygen by respiration of the feed samples at higher moisture levels show any demonstrable effect upon vitamin A preservation. Comparable vitamin A losses occurred in sealed and unsealed samples under similar storage conditions, but losses in both sealed and unsealed samples increased with temperature and length of storage.

The extremely rapid destruction of vitamin A which occurred when trace minerals (iron, copper, cobalt, and manganese) were added to an unsealed white corn sample containing codliver oil was prevented by adding the mineral in a dried gelatin-mineral mixture rather than in free form. Trace minerals added to feeds containing vitamin A should be in a form which limits their ability to come in contact, and react, with other constituents of the ration.—*J. Nutr., March, 1950: 405-407.*

That the synthesis of vitamin B₁₂ in the rumen is stimulated by the administration of cobalt has been explained by the discovery that this fraction of the B complex contains important amounts of cobalt. It is, therefore, logical to theorize that cobalt deficiency may be avitaminosis of B₁₂.

Vitamin A therapy cannot take the place of glucose in acetoneemia nor of biologic and medicinal treatment in white scours, but it often speeds recovery when used in conjunction with these lines of treatment.—*R. C. Tayler, M.R.C.V.S., Vet. Rec., Jan. 21, 1950.*

Pigs fed 1.5 mg. of vitamin B₁₂ per 100 lb. of feed made 31 per cent greater gains than control animals and required 22.7 lb. less feed per 100 lb. of gain.—*Hale and Lyman, Am. Soc. Anim. Production, Nov. 25-26, 1949.*

Of all farm animals, the dairy cow is queen when it comes to utilizing grassland crops like pasture, hay, and silage.—*R. E. Hodgson, USDA.*

EDITORIAL

Importance of the Registry of Veterinary Pathology

THE REGISTRY of Veterinary Pathology has been developed to study and provide more information on animal disease problems. Activities of the Registry have been set forth in reports published in the *J.A.V.M.A.* Members of the American Veterinary Medical Association can take pride in the support and financial assistance given to the Registry by the Association.

The value of the Registry to practicing veterinarians might be questioned by some who have not actually used its services or are not acquainted with its objectives. Two needs served by the Registry will be briefly discussed.

The first is the need of practicing veterinarians for assistance in the diagnosis of diseases in animals under their care. This need is rather obvious. The service available from the Registry of Veterinary Pathology is fundamentally a study of cases and diagnoses based on pathologic anatomy and histology. While it is generally true that most pathologic problems in domestic animals are related to infectious disease, and the basic sciences of bacteriology and virology are used in arriving at a diagnosis, there are many instances where the sciences of pathologic anatomy and histology are of value. The techniques of pathologic anatomy and histology, utilized to a great extent in human medicine, should be used more widely in veterinary medicine. A principal handicap to their more extensive use has been the cost. Modern hospitals for man include departments or sections of pathology. The Registry of Veterinary Pathology offers this service to practicing veterinarians. As progress is made, clinicians will profit from the effective use and specific applications of this service.

Very few of the diagnostic laboratories providing service for practicing veterinari-

ans are equipped to offer, or can afford to add, any extensive histologic examinations to the services they now provide. The science of histopathology will never replace the basic sciences of bacteriology and virology in the diagnosis of infectious animal diseases. It does, however, have a definite role which can be developed further as experience is gained.

Another benefit that can be expected from the Registry of Veterinary Pathology will come from studies of the material collected in the Registry. Some pathologic conditions regarded as of infrequent occurrence and of little significance actually may be real problems, whose importance can be judged only by having a large collection of specimens with which to work. The results of such studies will benefit not only veterinary medicine but human medicine as well. The basis for this latter statement is too well known to require elaboration.

As an example of what might be done and results to be anticipated, the following outline of a specific problem is suggested. Carcinoma of the eye in cattle is a recognized disease entity. Recently, new regulations concerning disposition of meat from the carcasses of animals with this disease have been issued to meat inspectors. Relatively few such cases of carcinoma of the eye in cattle have been subjected to histologic examination. Work that has been done suggests that there are different types of carcinoma of the eye in cattle. It has been thought that the unpigmented skin surrounding the eye in Hereford cattle is subject to irritation by ultraviolet rays. This irritation by ultraviolet rays is presumed to lead to the development of malignancy. Facts to substantiate or deny these ideas would come from a concerted study of cases. Many practicing veterinarians, confronted with such cases, surgically remove the tumors. Ordinarily, the tumor is discarded and the case forgotten. If such material were sent to the Registry of Vet-

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erinary Pathology, together with complete records as to age of the animal, breed, color, and history of the lesion, within a relatively short time sufficient material would be available for study. The data could be correlated with type of tumor, pigmentation of skin, and geographic area from which the case came. The possibility of genetic influence might be examined in cases affecting pedigreed animals. The knowledge gained from such a study might be helpful in preventing the condition, or at least in assisting veterinarians called to treat these cases.

The pathologic aspects of a disease must be studied before we can begin to understand it. All disease conditions are deviations from the physiologic state, and the changes occur in the cells of the body. This concept of the significance of cells of the body in disease states was established by Virchow nearly one hundred years ago. Facts accumulated since then continue to verify this basic idea. The changes within cells may not always be reflected in their morphology, staining capacity, or in similar ways. The changes are there, however, and sometimes can be demonstrated indirectly; for example, with biochemical methods. The electron microscope can be expected to yield additional morphologic evidence when suitable techniques have been developed. We must realize that our knowledge of most disease states is imperfect and that continuous study is necessary. More information on fundamentals provides a good foundation to build a better understanding of animal disease problems.

A wealth of pathologic material that should be studied is now going to waste. The Registry of Veterinary Pathology can hope to make use of only a very small portion of this mass of material. Veterinarians in practice have the responsibility of selecting cases whose study by the Registry will provide useful information. As previously mentioned, veterinarians may expect two benefits; namely, information concerning the case in question and the knowledge gained from other similar cases.

PREPARATION OF MATERIAL FOR PATHOLOGIC EXAMINATION

Proper preparation and submission of material to the Registry of Veterinary

Pathology is important. (1) Tissues should be obtained as soon after death as possible. Those which have undergone extensive postmortem autolysis are valueless. (2) Blocks of tissue should be cut, with sharp and clean knife or scissors, not more than $\frac{3}{8}$ in. thick. The sides of the block should be parallel and even. They should include the pathologic and adjacent normal portion of tissue. (3) Tissues should be collected from all organs regardless of the presence or absence of gross lesions. It is easy enough to discard them later if they have no apparent significance. (4) The blocks of tissue should not be crushed or bent. (5) The tissues should be fixed promptly in at least ten times their volume of 10 per cent formalin solution (prepared by diluting 1 part commercial formaldehyde solution in 9 parts tap water). To this, add a small amount of calcium carbonate (chalk) to prevent formation of formic acid. (6) Tissues which tend to float (lung or fatty tissue) should be covered with gauze or cotton. (7) The brain should be fixed in its entirety without cutting. (8) After twenty-four to forty-eight hours of fixation, pour off the formalin solution, wash the tissues in running tap water, and place them in fresh 10 per cent formalin with chalk. (9) After thorough fixation, the tissues can be packed for shipment with cotton and enough 10 per cent formalin to keep them moist.

A complete description of the case should accompany the specimen. The records and specimens must be clearly marked with the case number, owner's name, or similar identifying feature. The description of the case should include all the information available to the clinician concerning the particular case. Any bacteriologic or clinical laboratory work on the case should be completed and the results indicated in the records. The Registry of Veterinary Pathology has two forms available for contributors. One is for material from necropsies and the other for specimens from biopsy. It is not necessary to have these forms in order to submit specimens, but they do indicate the information desired. Specimens and correspondence should be addressed to, "Director, Armed Forces Institute of Pathology, Washington 25, D.C."

CARL OLSON, JR.

CURRENT LITERATURE

ABSTRACTS

Streptomycin in Experimental Brucellosis in Guinea Pigs

The subcutaneous administration of streptomycin and the oral administration of sulfadiazine on alternate days was just as effective as daily treatments when the total dosage remained the same. Also, the treatment on alternate days was as effective when started at the time of infection as when started ten days after infection.—[L. W. Holm and W. G. Moore: *Studies on the Effect of Streptomycin in Experimental Brucellosis in Guinea Pigs*. *Am. J. Vet. Res.*, 11, (April, 1950): 214-216.]

Sheep Parasites in Argentina

Of all the internal parasites affecting sheep, the *Strongylus contortus* (Haemonchus) is the most prevalent, according to this author. Animals up to 1 year old are the favorite hosts and seem to suffer more from the mechanical and toxic action of the parasites. During lactation, the ewe shows the effects of parasitism more quickly than at any other life stage, so its nutrition should be carefully preserved to give added resistance against parasitic invasion and damage. After this period, the subdivision of grazing land and rotation of pastures every fifteen days, if possible, assures a better utilization of forage by the animals.

Nutrition can be supplemented in poor pastureland with equal parts of cracked corn, oats, bran, and dry alfalfa.

Medical treatment is recommended — copper sulfate and carbon tetrachloride alternately, repeated every fifteen days. Calcium and phosphate should be given to sickly animals.—[A. López Arias: *Nutrition and Internal Parasitism of Ovinos*. *La Res.* (Argentina) 17, (Aug., 1949): 23,843-23,845.]—O. A. LOPEZ-PACHECO.

Diarrhea of Human Infants and Calves

A filterable agent was isolated from cases of diarrhea in new born human babies in four separate hospital outbreaks. In each instance, the filtered agent regularly produced diarrhea in calves. The four strains of virus appeared to be identical or very closely related. Attention is drawn to the similarity of viruses, since it causes diarrhea not only in human infants but in calves as well.—[J. S. Light and H. L. Hodes: *Isolation from Cases of Infantile Diarrhea of a Filterable Agent Causing Diarrhea in Calves*. *J. Exptl. Med.*, 9, (1949): 113-135.]

Bovine Hepatic Telangiectasis

When vinylite plastic of contrasting color is used to inject each of the three vascular systems of the liver, it is possible to study the structure and the changes in three dimensions by following such injection with corrosion of the liver tissue. Using this technique, the author concludes that all lesions of telangiectasis occurred in the hepatic portal system. In no case were lesions found in the other systems of the liver. The sinusoids are the affected area and they are found in the hepatic portal circuit, which is a connection of one hepatic portal radicle with another to form a potential collateral loop.

The conclusions drawn from this study differ somewhat from those drawn by previous workers. It is concluded that telangiectasis results primarily from a breakdown of liver cells with dilation of the intervening blood spaces. Normally, there is an internal equilibrium of pressures of the liver parenchyma and the circulating blood. As circulation is disturbed, this equilibrium is also disturbed. Then there is a passive dilation of the hepatic portal vein. The author suggests that we not think of the lesion as a disease entity, but rather as a pathologic process of the bovine liver of unknown cause or causes. Specifically, he differs from conclusions previously drawn in that he sees no correlation of telangiectasis and the sawdust condition, and he concludes that in the San Francisco area, sawdust is not necessarily a pathologic antecedent of telangiectasis; rather, the latter condition appears uncomplicated and unrelated to other liver troubles.—[Logan M. Julian: *Studies of the Subgross Anatomy of the Bovine Liver. II. The Pathology of Telangiectasis as Demonstrated by the Vinylite-Corrosion Technique*. *Am. J. Vet. Res.*, 11, (April, 1950): 166-172.]

Toxicity of Flat Peas

Flat pea seed contains an element which is toxic to animals, particularly rats. The toxic substance is evidently not an antivitamin, and is suspected of being alkaloid in nature. The toxicity could not be overcome by feeding the B-complex vitamins, even at levels 60 times the normal requirement. There was some evidence that adult rats, particularly, could build up some degree of tolerance to the poison.—[T. C. Huang, T. J. Cunha, and W. E. Ham: *The Deleterious Effects of Flat Pea Seed for Rats*. *Am. J. Vet. Res.*, 11, (April, 1950): 217-220.]

The Virus of Equine Infectious Anemia

Electron micrographs were made which showed bodies assumed to be the virus of equine infectious anemia. The virus of this disease was passed through rabbits by inoculation and all injected rabbits showed an increase in temperature. Rabbit virus from the third serial passage, when injected into a horse, produced a chronic form of the disease. The rabbit passages were continued through 20 subinoculations.

The electron micrographs of this rabbit-adapted virus are made under magnifications up to 56,000 diameters.—[R. L. Reagan, Mary G. Lillie, Jean W. Hickman, and A. L. Brueckner: *Studies of the Virus of Equine Infectious Anemia*. *Am. J. Vet. Res.*, 11, (April, 1950): 157-158.]

Diluents for Bull Semen

A sterile diluent that can be prepared in large quantities, and used as needed in diluting bull semen, can be prepared by homogenization, lyophilization, and pasteurization of an egg-yolk sodium citrate solution which contains 3 parts of egg yolk to 5 parts of citrate solution. The details of preparation and use are included in the paper.—[John B. Herrick: *The Effect of Homogenization, Pasteurization, and Lyophilization on Egg-Yolk Sodium Citrate Diluents for Bull Semen*. *Am. J. Vet. Res.*, 11, (April, 1950): 159-160.]

BOOKS AND REPORTS

Foot-and-Mouth Disease Virus Cultivation

The virus of foot-and-mouth disease has been cultivated on the skins of 3-month-old bovine fetuses. Cultivation is assumed because the cultivated virus was refrigerated at 37 C. for 480 hours, whereas the virus in the control tests survived only thirty-six hours.

The cultivated virus could be preserved for 304 hours at 4 C. without any detectable loss of activity.—[*The Cultivation of Foot-and-Mouth Disease Virus on Bovine Fetal Tissue*. Portuguese with English Summary. By E. E. P. Zuloaga, Instituto Nacional de la Fiebre Aftosa, Buenos Aires, Argentina. Paper, 40 pages, plus 8 pages of cuts and plates. 1940. Price not given.]

Veterinary Obstetrics

A survey of the story of human assistance at animal births shows that the ancient Egyptians followed the practice of keeping a herdsman near at hand during parturition in cattle. The Greeks, particularly Aristotle, added much to the procedures and techniques.

Beginning with ovulation and fertilization, the text discusses for each of the several species of farm animals the progress of pregnancy to termination. It stresses normal and abnormal presentation, and methods of restraint for delivery in

difficult parturition with both types of presentation. Quite naturally, greater emphasis falls upon the correction of the abnormal and the handling of the accidents which accompany the unusual. The types of instruments used are shown, the methods of using them are described in detail, and treatment and handling of the accidents are discussed in full.

Although we find it difficult to read a text of this magnitude word by word, those sections which we have so checked indicate that the subject has been covered thoroughly, accurately, and in the light of present-day developments.

The quality of the paper is good, the type is clear and easy to read, but the cover and the binding do not quite maintain this standard of excellence.—[*Textbook of Veterinary Obstetrics (Lehrbuch der Tiergeburtshilfe)*. By J. Richter and R. Gotze. In German. Cloth. 699 pages. 465 illustrations, some in color. Richard Schoetz, Kirchstrasse 5, Berlin-Friedenau, Germany. 1950. Price not given.]

Rabies Review

This is the name of a 4-page leaflet printed monthly by the State Department of Health, Albany 1, N.Y. H. E. Hilleboe, M.D., is commissioner of the department and A. Zeissig, D.V.M. is editor of New York State Rabies Review.

Each issue deals with one phase of the rabies-eradication problem, and handles it in such a way that any community wishing to work with the program will have all the information necessary for continuous procedure.

Veterinary Pharmacology

The book is based on the thesis that although all living creatures must die, it is possible to save or prolong life by the proper use of drugs, chemicals, and biological agents.

The book is prepared in the conventional manner with chapters on anesthesia and anesthetics, the antipyretic agents, the effects of the hormones, and then chapters on specific types of agents and the actions of these products.

In a sense, the book is difficult to evaluate for American readers because it contains information on many items which are not currently used by veterinarians here and, on the other hand, it apparently fails to mention some substances which are commonly used by American practitioners.

That the book is highly regarded in Germany is attested by the fact that this is the eighteenth revision and that each edition since the first one, which appeared in 1888, has included such information as has accumulated since the previous edition was published.

A survey of the book indicates that it considers not only the basic pharmacologic substances, but also the official preparations of these drugs. The various chapters deal with the vegetable and synthetic drugs and also the substances used in or

ganotherapy and the biological agents needed for diagnostic tests and for treatment of infectious diseases. The discussion of the biological agents is brief as is also that on vitamins, minerals, trace minerals, and similar topics.—[*Lehrbuch Der Arzneimittellehre für Tierärzte*. By Richard Reinhardt. 18th ed. of Eugen Frohner's original book. Cloth. 400 pages. Ferdinand Enke, Stuttgart, Germany. 1950. Price 29 marks, 80.]

REVIEWS OF VETERINARY MEDICAL FILMS

A Hen Makes an Egg.—Silent, 16 mm., color; running time about forty minutes. Produced by the members of the Ralston Purina Company research laboratory staff and photographed by William Brew, their research chemist. This film is available from the Public Relations Division, the Ralston Purina Company, St. Louis, Mo.

As the title suggests, this picture traces the development of the egg. It begins with the ovaries of the baby chick and finally shows the shell-incased egg in the isthmus of the laying hen. The organs of the chicken are clearly shown by cross-section drawings and pictures which include the egg in the oviduct, the ovary, the liberation of the yolk, and the entire reproductive system. Some of the pictures are made of an anesthetized chicken, and the excellent photography that characterizes the film reaches its climax in these "shots". The passage of the egg through the oviduct funnel, magnum, isthmus, and uterus is shown by pictures of these organs removed from the bird.

Following the description of the development of the egg, there is a long portion of the film devoted to problems of egg production. Reasons why hens don't lay are shown, which include diseases, parasites, poor breeding, inadequate rations, and unsound management practices. How good breeding, sound management, careful sanitation, and good feeding increase egg production is shown, as well as the effect of rations on the shell, yolk color, egg white, hatchability, and livability of chicks.

For a silent film, this picture is a little too long, but there is a wealth of information in it. Although primarily designed for laymen, particularly poultry producers, there is much in the picture that veterinarians will find interesting and educational, mainly in the way of review. Portions of it should have value for teaching in colleges of veterinary medicine.

Necropsy of an Elephant (PMF 5011).—Sound, 16 mm., color; running time approximately fifteen minutes. Produced by and procurable from the U. S. Army. Requests should be sent to the AVMA Motion Picture Library, 600 S. Michigan Ave., Chicago 5, Ill., so that applications may be submitted on the proper form and to the proper Army Headquarters.

An elephant that died from pulmonary tuberculosis in India was autopsied by members of the Veterinary Corps. Pictures of this autopsy make an interesting and extremely informative film. The steps of the autopsy, beginning with the removal of the legs on through to the opening of the body cavities, and the detailed examination of all the organs, are shown with excellent photography and the additional benefit of color film. Some of the surprising and interesting facts revealed by this picture will be the size of some of the bodily organs; for example, the heart weighing 7.7 kg.; a spleen, 4 ft. long; and a liver weighing 35 kg. In conjunction with these pictures of the examination of the organs are also some photomicrographs showing the deterioration or condition of the organs. It also gives an excellent picture of the postmortem lesions of tuberculosis, since the final diagnosis was bovine tuberculosis.

This film should be extremely interesting to all veterinarians and students of veterinary medicine. It not only is excellently done and presents a thorough postmortem examination, but it also relays much valuable information about the anatomy and physiology of the elephant with which all veterinarians should be familiar. Probably not suitable for most lay audiences.

Liver Fluke Disease in Sheep.—Sound, 16 mm., black and white; running time about fifteen minutes. This is an English language, sound version of a liberated German film produced by the I. G. Farbenindustrie, Frankfurt-am-Main, Hoechst, reproduced by U. S. Army, and available from the Army. Requests should be submitted to the AVMA Motion Picture Film Library so that requests can be sent to the proper headquarters on the proper form.

The life cycle of the fluke is shown in a complete manner by this film. There are photomicrographs of the miracidia leaving the sporocysts, and pictures of the snails being attacked by the miracidia. It also shows the development of the miracidia into the sporocysts, then into the larva and the miracidia encysting on the plant leaves. There is also a diagrammatic illustration of the migration of the fluke through the body of the animal and a diagram that illustrates the life cycle. There are pictures of fluke infection in a cat and the conducting of a fecal examination. The results of treatment are shown by the examination of sheep livers after treatment which show the dead flukes.

Although it is obvious that some of this is old film, the quality of the photography and the manner in which the material is presented makes it an extremely valuable picture. The photographs and diagrams are excellently prepared and will be of extreme interest to all veterinarians and students. The acquisition of this film through what may be called the "spoils of war" makes a valuable contribution to the veterinary medical motion pictures of this country.

THE NEWS

Eighty-Seventh Annual Meeting

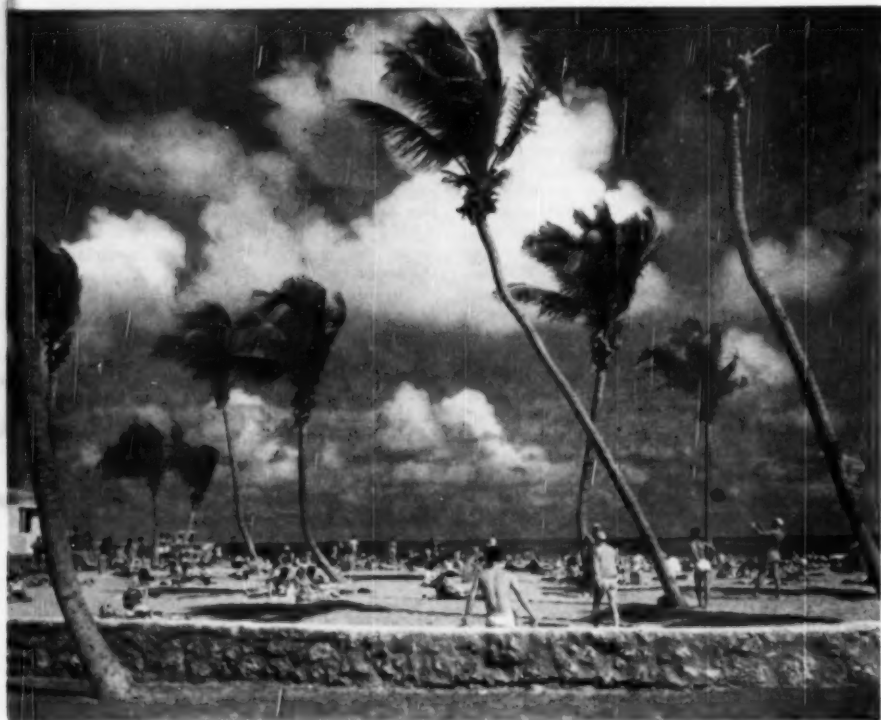
Miami Beach—August 21-24, 1950

Transportation to Miami Beach

If you are among the many AVMA members who will travel to the Miami Beach convention by auto, this fact is worth keeping in mind: The entire southern and southeastern sections of the United States are rich in historic and scenic interest—so be sure to allow sufficient time for sight-seeing, either on the way down or on the way back. As soon as you know the states you will travel through, write to the state chamber of commerce, department of state parks, and state highway de-

partment in each state capital for information about recreational facilities and locations of places of historic interest.

Streamliner trains offer excellent transportation to the convention from all major points in the nation, and members will find local railway agents most helpful in selecting trains that fit their individual travel needs. In areas served by more than one line, the selection will depend largely upon the desired time of arrival at the conven-



—Miami Beach News Bureau

Here is one section of the 2 miles of sparkling beach maintained by the city of Miami Beach for free public use.

tion city. For example, members departing from Chicago will have their choice of three streamliners: Illinois Central's *City of Miami*, leaving Chicago on the morning of August 19 and arriving in Miami on the afternoon of August 20; Chicago & Eastern Illinois' *Dirie Flagler*, leaving on the morning of August 18 and arriving on the evening of August 19; or Pennsylvania's *Southwind*, leaving on the morning of August 17 and arriving on the evening of August 18.

Those who plan to fly are urged to contact their nearest airlines office for information about trips at special excursion rates. In step with the growing popularity of Miami Beach as a summer vacation spot, some of the leading airlines have just inaugurated summer excursion flights at greatly reduced rates. These are daytime flights that make the trip in almost as little time as the luxury air-cruisers. Some of the lines also offer night-coach flights at economy rates.

Arrival on Saturday evening, August 19, or Sunday morning, August 20, is urged for as many as possible, so that they may get settled in their hotels and have time to register on Sunday, ahead of the Monday morning rush. The opening session is at 10:00 a.m. Monday.

Microfilms of AVMA Journals Available

Microfilm copies of complete volumes of the *Journal of the American Veterinary Medical Association* and of the *American Journal of Veterinary Research* are now available through University Microfilms, 313 N. First St., Ann Arbor, Mich.

Storage of journals and periodicals has become a major problem for all large libraries and a recording of journals on microfilm helps to solve this problem for these publications which are not used frequently. Special equipment is provided for libraries so that the film reading may be accomplished effectively and quickly.

The Journals of the AVMA were included in this list because libraries had indicated an interest in having microfilms of our Journals available.

New Veterinary Schools in Georgia and Missouri Approved by Council on Education

At its meeting in Chicago on May 6, 1950, the Council on Education voted to give probationary approval for the ensuing year to the School of Veterinary Medicine at the University of Georgia, Athens, and the School of Veterinary Medicine at the University of Missouri, Columbia. The Council also directed that all state boards of veterinary medical examiners be notified at once of the action so that graduates of the new schools would be in a position to take examinations in those states which require that applicants be graduates of veterinary colleges approved by the AVMA Council on Education.

Dr. Thomas J. Jones is dean of the Georgia school, and Dr. A. H. Groth is dean of the Missouri school, the latter's title having recently been changed from that of director by action of the Board of Curators of the University of Missouri.

There are now 13 approved veterinary colleges in the United States and two in Canada. There are four other new schools in the United States which will be eligible for inspection for accreditation by the Council on Education when their senior (fourth) year of the professional curriculum is under way: two in 1951 (University of California, at Davis, and University of Oklahoma, at Stillwater) and two in 1952 (University of Illinois at Urbana, and University of Minnesota, at St. Paul).

Executive Board Nominees in Districts V and VII

As a result of balloting conducted in Executive Board Districts V (Iowa and Minnesota) and VII (Idaho, Montana, Nebraska, North Dakota, Oregon, South Dakota, Washington, Wyoming, Alaska, Hawaii, and the Philippine Islands), the following candidates have been nominated for five-year terms on the Executive Board, ending in 1955. Drs. W. A. Young and E. R. Maschgan of Chicago served as tellers on May 3, 1950, and certified the following results:

DISTRICT V

Dr. Harry Evenson, Sacred Heart, Minn.
Dr. H. U. Garrett, Des Moines, Iowa.
Dr. E. H. Gloss, Gaylord, Minn.
Dr. C. F. Schlotthauer, Rochester, Minn.

A blank (fifth) space on the election ballot had to be provided to enable members in the district to write in, if desired, the name of one of the following 14 nominees, all of whom were tied for fifth place in the nominating election: Dr. W. A. Aitken, Merrill, Iowa; Dr. W. L. Boyd, St. Paul, Minn.; Dr. John N. Campbell, Fairmont, Minn.; Dr. John W. Carey, West Liberty, Iowa; Dr. C. H. Covault, Ames, Iowa; Dr. John K. Dewar, Cherokee, Iowa; Dr. P. O. Dorweiler, Fort Dodge, Iowa; Dr. C. C. Franks, Des Moines, Iowa; Dr. R. B. Helming, Cresco, Iowa; Dr. H. C. H. Kernkamp, St. Paul, Minn.; Dr. B. S. Pomeroy, St. Paul, Minn.; Dr. Don H. Spangler, Atwater, Minn.; Dr. John D. Shoeman, Atlantic, Iowa; Dr. Frank R. Young, Waukegan, Iowa.

DISTRICT VII

Dr. H. E. Kingman, Sr., Cheyenne, Wyo.
Dr. Peter G. MacKintosh, Yakima, Wash.
Dr. O. H. Person, Wahoo, Neb.
Dr. Arthur P. Schneider, Boise, Idaho.
Dr. E. E. Wegner, Pullman, Wash.
Dr. H. F. Wilkins, Helena, Mont.

In this district, it was necessary to list six

nominees instead of the usual five because of a tie for fifth place.

Election ballots were mailed on May 10, 1950, to all members in the two districts; the polls will close on July 9, 1950. The candidates elected will take office at the conclusion of the annual meeting in Miami Beach next August.

American College of Veterinary Pathologists

The American College of Veterinary Pathologists was organized in Chicago in December, 1948, with the following objects:

- 1) To further scientific progress in the specialty of veterinary pathology.
- 2) To establish standards of training and experience for qualification of specialists in veterinary pathology.
- 3) To further the recognition of such qualified specialists by suitable certification and other means.

A questionnaire was sent to the departments of pathology in the various colleges of veterinary medicine and to colleges and universities which offer graduate work in veterinary pathology. The information has been tabulated and the principal fact revealed by the summarized data is that there is considerable variation in both the quality and the quantity of instruction given in pathology in our veterinary medical colleges.

To improve this situation, the American College of Veterinary Pathologists has volunteered to sponsor a seminar on the teaching of veterinary medical pathology. Present plans call for the seminar to be held during this coming summer in some centrally located veterinary college.

AVMA Directory Correction

Through an oversight of the AVMA directory department, the proper changes in the "Digest of the Practice Act" for Kentucky were not made in the 1950 edition of the *AVMA Directory*. Following is the "Digest" as it should read:

Kentucky

From an Act of the regular session of the Legislature in 1948 and approved by the Governor, March 29, 1948.

EXAMINATIONS—Last Monday in February and July each year at Frankfort.

CREDENTIALS—None required, but graduate licenses granted only to applicants holding diplomas from recognized veterinary colleges.

FEE—\$25.00.

STATE REGISTRATION REQUIRED—Annual fee \$10.00.

RECIPROCITY—None.

CITIZENSHIP—No requirement.

EXECUTIVE OFFICER OF THE BOARD—

Dr. J. K. Bushnell, Secretary-Treasurer, Kentucky State Board of Veterinary Examiners, 229 Houston Ave., Paris, Ky.

U. S. Pharmacopoeial Convention

Drs. H. E. Moskey and D. K. Detweiler represented the AVMA at the decennial meeting of the United States Pharmacopoeial Convention in Washington, May 9 and 10, 1950, as delegate and alternate, respectively. Dr. Moskey, veterinary medical director of the Food and Drug Administration, has represented the Association in U.S.P. matters for several years. Dr. Detweiler, assistant professor of veterinary pharmacology, University of Pennsylvania, is a member of the AVMA Committee on Therapeutic Agents and Appliances.

A spirited campaign was waged to alter the General Committee on Revision in such a way that one member would represent veterinary medicine. Many persons active in U.S.P. matters became interested in having Dr. L. Meyer Jones, Ames, Iowa, appointed to the General Committee on Revision, and spoke in favor of such a change. However, the campaign was not successful.

The AVMA, however, will continue to have a representative to the U.S.P. Convention. In addition, it seems likely that the General Committee on Revision will request that a veterinary advisory group be appointed to work with it on problems in the field of veterinary medicine.

Medical Illustrators' Directory

The directory issue of "Graphics," the official publication of the Association of Medical Illustrators, contains the name, address, training, professional experience, and reference to major published work of each member. Issued on June 1, 1950, the publication is available to those requiring medical illustration service, and will be sent free upon request to the editor, Miss Helen Lorraine, 5212 Sylvan Rd., Richmond 25, Va.

Ralston Purina Fellowship Winners

The Ralston Purina Research Fellowship Awards Committee met in St. Louis, Mo., on March 27 to select the seven fellowship winners for the 1950-1951 school year. The fellowships are an annual award and the selections each year are on the basis of merit, regardless of whether the applicant has previously been an award winner. Several of this year's winners also received fellowships in 1949-1950. The selections were made from 58 applications representing 29 states and 2 Canadian provinces.

Dr. Rue Jensen, Fort Collins, Colo., was named winner of the veterinary science award, with Dr. Andrew S. Greig, Guelph, Ont., selected as alternate.

Miami Beach is famous for
cool summer evenings.

Twenty-Six Constituent Associations Using AVMA Radio Scripts

Weekly seven-minute radio scripts on timely livestock health subjects, issued by the AVMA as a special service to state and provincial associations, are now being broadcast in 26 states and provinces over more than 40 local stations as well as some networks.

Veterinarians taking part in these broadcasts, which are prepared in announcer-veterinarian interview style, have repeatedly praised this AVMA

service as a stimulus to wider public recognition of the profession's work. Constituent associations not now participating in this project are invited to write for information. Sample copies of scripts will be sent on request.

The following table shows the associations which are using the scripts and contains a partial list of stations over which these programs may be heard.

Schedule of State and Provincial Association Broadcasts, as of June 1, 1950

State	Station	Location	Day	Hour	Name of Program
California	KNBC	San Francisco			Farmers' Digest
Connecticut	WKNB	New Britain	1st Tues. of month	7:20 p.m.	Farm Program (FM)
Illinois	(Various stations)				
Indiana	WFBM	Indianapolis	Thursday	12:50 p.m.	Farm Hour
	WEOA	Evansville	(Once a month)	12:00 noon	Farm Hour
	WGBF	Evansville	(Once a month)	12:00 noon	Farm Hour
	WJPS	Evansville	(Once a month)	12:00 noon	Farm Hour
	WITZ	Jasper	(Once a month)	12:00 noon	Farm Hour
	WKAM	Warsaw			
Iowa	WOI	Ames			Farm Program
Kansas & Missouri (coöperative)	KMBC	Kansas City, Mo.	Saturday	12:50 p.m.	Farm Hour
Kentucky	WHIR	Danville	Wednesday	12:00 noon	Farm Fair
Massachusetts	WBRK	Pittsfield	(Once a week)	6-7:00 a. m.	Farm News
	WBKA	Brockton	(Once a week)	6-7:00 a. m.	Farm News
Michigan	WKAR	East Lansing	Friday	1:15 p.m.	Diseases of Farm Animals
	WWJ	Detroit		6:30 a.m.	Farm Program
Nebraska	KFAB	Lincoln	Wednesday	6:30 a.m.	McDonald's Farm Program
New York	WICY	Malone	2nd Thurs. of month	7:30 a.m.	Farm Bureau Hour
	WJZ	New York City		6:00 a.m.	Farm News
North Carolina	WLTC	Gastonia	Friday	6:05 a.m.	On the Farm Front
	W/WNC	Asheville	Thursday	4:15 p.m.	Variety Hour
North Dakota	KFYR	Bismarck	Tuesday	7:15 a.m.	Country Almanac
Ohio	WBEX	Chillicothe	Tuesday	12:30 p.m.	Farm Hour
	WONE	Dayton	Friday	12:45 p.m.	Buckeye Farmtime
Oklahoma	KLPR	Oklahoma City	(Once a week)	10:00 a.m.	
Pennsylvania	WFIL	Philadelphia	Every other Wed.	6:00 a. m.	Farmer Jones
Tennessee	WSM	Nashville	Every 4th Mon.	12:30 p.m.	Noontime Neighbors
Texas	WTAW	College Station	Monthly		Farm Program
	KBKI	Alice	Tuesday	7:00 a.m.	Farm Fair
Vermont			Monthly		Extension Service
Virginia	WPUV	Pulaski	Friday	1:45 p.m.	Farm Hour
Washington		Pullman			College Hour
	KPUG	Bellingham	Friday	7:45 a.m.	Care of Your Animals
Wisconsin	(Various stations)				
Manitoba	CBW	Winnipeg	Tuesday	12:00 noon	Farm Program
Ontario	CFRA	Ottawa	Wednesday	12:15 p.m.	Farmers' Notebook
Quebec	CBF	Montreal	Tuesday	12:30 p.m.	Réveil Rural
	CJSO	Sorel		12:45 p.m.	La Voix de la Terre
	CKAC	Montreal		7:30 a.m.	L'Eveil Agricole

Proposed Amendments to Constitution and Administrative By-Laws

The following amendments which were proposed at the 1949 annual meeting of the House of Representatives (see Proceedings, Oct. 1949, JOURNAL, pp. 297-298) will come up for final action by the House at the annual meeting in Miami Beach, Aug. 21-24, 1950. They are published again for the information of the membership and, together with the new proposals which follow, will be re-published for three months, so that final action can also be taken on them this year as provided in Section 3, Article XIII, of the Administrative By-Laws.

Amendments Proposed in 1949

AMENDMENT No. 1

To amend Section 1 (a) of Article XI, Administrative By-Laws, relating to Constitutional Sessions, so that it will read as follows:

Section 1.—a) Time: An annual session shall be held in each calendar year, the exact date of which shall be fixed by the Executive Board at least four months prior to the time decided upon. [Purpose.—To remove the present limitations on the time when the annual session may be held; namely, between July 1 and December 31. There may be years when it would be desirable to hold the meeting prior to July 1.]

AMENDMENT No. 2

To amend Section 5(a) of Article X, Administrative By-Laws, relating to junior members, so that it will read as follows:

Section 5.—a) Junior members recommended as having been members in good standing for two years in their respective junior chapters and who are vouched for by two members of the Association may be admitted to membership without the payment of the membership fee of \$5.00, provided the applications are filed within thirty days after the date of their graduation. To retain membership in the Association, members admitted under these provisions from junior chapters, within a period of three years following graduation, must join a constituent association.

[Purpose.—To allow eligible members of junior chapters the privilege of joining the Association immediately following graduation without waiting until they become located and have acquired membership in a constituent association as is now required of regular applicants; also to put them on the same status as other members, within a reasonable time, with respect to being members in good standing of a constituent association.]

New Proposals

NEW PROPOSAL No. 1

To amend Section 3, Article XII, Administrative By-Laws, relating to Councils and Committees, so as to make the present Special Committee on History a standing committee, as recommended in

the report of the Committee presented and adopted last year. The following paragraphs would need to be added to Section 3, Article XII, following part 14:

15. COMMITTEE ON HISTORY

a) *Personnel*.—This committee shall consist of five members, one of whom is to be appointed each year for a term of five years. The president shall appoint the chairman. The first members shall be appointed for one, two, three, four, and five years, respectively, for terms expiring in the same order.

b) *Duties*.—It shall be the duty of the first committee appointed to make a survey and, subsequently, to outline the specific scope of the work to be done by this committee, this survey and outline to be submitted to the Executive Board and House of Representatives for approval. Thereafter, the committee shall, each year, execute a portion of the work that has been approved and, from time to time, shall draw up additional plans and recommendations for its work for submission to the Executive Board and House of Representatives.

NEW PROPOSAL No. 2

To amend Section 3, Article XII, Administrative By-Laws, relating to councils and committees, so as to make the present Special Committee on Ethics a standing committee as recommended in the report of the Committee presented and adopted last year. The following paragraphs would need to be added to Article XII following proposed new part 15 (see above):

16. COMMITTEE ON ETHICS

a) *Personnel*.—This committee shall consist of three members, the majority of whom shall be actively engaged in the practice of veterinary medicine. The term of appointment shall be three years. The president shall appoint the chairman. The committee may select one of its members to serve as secretary. The first members shall be appointed for one, two and three years, respectively, for terms expiring in the same order.

b) *Duties*.—It shall be the duty of this committee to conduct an educational program among members of the profession regarding ethical standards of conduct; to offer assistance to accredited veterinary colleges in presenting the subject of ethics to their students; and to collaborate with constituent associations through their officers or appropriate committees for the purpose of stimulating an active interest in, and compliance with, the Code of Ethics of this Association. It shall receive and consider all matters pertaining to ethical problems referred to the Association from constituent associations or from members in good standing. Furthermore, it shall consider alleged violations of the Code of Ethics referred to it by local and constituent associations for the purpose of obtaining correction of such violations on a local basis if possible. In case of repeated violation of the Code by a member, which cannot be

resolved by the local committee or constituent association, recourse shall be taken by the submission of formal charges against the offending member as provided in the Administrative By-Laws. It shall also be the duty of the committee to endeavor to correct unethical practices of members of the Association in locations where, in its opinion, the problem is being neglected by the local and constituent associations.

NEW PROPOSAL NO. 3

This proposal was formulated by the Research Council at its meeting on Nov. 28, 1949, was submitted to the Executive Board on Nov. 29, 1949, and was approved for consideration and action by the House of Representatives at the 1950 annual meeting.

To amend Section 3, Article XII, Administrative By-Laws, relating to councils and committees, specifically subparagraph (c) of part 12, Research Council, so that it will read as follows (changes are in italics):

c) Duties.—The Council shall develop plans and projects, based on the establishment of fellowships with any funds that may be provided, for the purpose of encouraging graduate and postgraduate study by veterinarians and developing more and better veterinary investigators, teachers, and practitioners.

The Council shall serve as a coordinating and correlating body in matters pertaining to veterinary research coming under its jurisdiction. Further, the Council shall, with any funds that may be provided for research on specific problems, determine the conditions, indicate the facilities required, and assign the projects.

Note.—The present last paragraph relating to duties is to remain unchanged.

[Purpose.—To clarify the status of the Research Council with respect to carrying on activities beyond the original definition of its work, such as accepting funds for research on specific projects which may not require a full-time fellowship but which may merit the assistance of the Council in seeing that they are properly set up and placed.]

NEW PROPOSAL NO. 4

To amend subparagraph (a) of Section 2, Article X, Administrative By-Laws, relating to election to active membership. Amend the third and fourth sentences of the paragraph so that they will read as follows (changes are in italics):

The application from a veterinarian residing where there is a constituent association shall contain the certificate of its secretary that the applicant is a member in good standing of that body. In the case of an application from a veterinarian residing where there is no constituent association, it shall contain the endorsement of two members who know the applicant, one or preferably both of whom shall live in the same country as the applicant.

[Purpose.—As the third sentence now reads, it implies that applications may come only from vet-

erinarians who are already members of constituent associations, which is true; however, the original intent was that a veterinarian, residing where there is a constituent association but not a member of it, and who wishes to apply for AVMA membership, shall first become a member of said constituent association.

As the fourth sentence now reads, it ignores the fact that there are presently constituent associations outside the United States and Canada; namely, in Cuba, Puerto Rico, and the Canal Zone, where prospective applicants may qualify if they belong to said constituent associations.]

NEW PROPOSAL NO. 5

To amend Section 2, Article X, Administrative By-Laws relating to active members, in order to clarify reference to graduates of foreign veterinary colleges "approved by the Council on Education." Amend the second clause of the paragraph so that it will read as follows (changes are in italics):

or, of foreign veterinary colleges approved by the Council on Education only for purposes of qualifying their graduates for membership in the Association.

[Purpose.—As the clause now reads, it implies that the Council on Education formally approves foreign veterinary colleges. This is not the case because the jurisdiction of the Council is limited to the United States and Canada with respect to actual accreditation of veterinary colleges. Furthermore, the acceptance of occasional foreign graduates as AVMA members in recent years has been misinterpreted in some instances as tantamount to official accreditation of their schools.]

NEW PROPOSAL NO. 6

To carry out the recommendation made by President-Elect Zepp to the House of Representatives at the annual meeting in 1949 relative to the formation of a planning committee to be elected by the House from its membership (see Proceedings, Oct., 1949, JOURNAL, pp. 333-334). This requires an amendment of Article XII of the Administrative By-Laws relating to councils and committees so as to add the following paragraphs after proposed new part 16.

17. EXECUTIVE COMMITTEE OF THE HOUSE OF REPRESENTATIVES

a) Personnel.—This committee shall consist of seven members elected by the House of Representatives from its own membership. All members shall be actively engaged in the branch of service which they are elected to represent. Two members shall represent large-animal practice, one member shall represent mixed practice (approximately 50% large animal and 50% small animal), one member shall represent small-animal practice, one member shall represent teaching and research, one member shall represent federal or state government regulatory services, and one member shall represent the Armed Forces, U.S. Public Health Service, or its state counterparts.

Chairman.—The committee shall each year elect its own chairman, who, in addition to serving as chairman, shall act in a liaison capacity between the House of Representatives and the Executive Board. The chairman shall attend the annual session of the Executive Board but shall not have the right to vote.

Tenure.—Members shall be elected for terms of three years and shall be eligible for reelection. However, at the initial election, three members shall be elected for three-year terms (one representative of large-animal practice, one representative of mixed practice, and one representative of the federal or state government regulatory services), two for two-year terms (one representative of small-animal practice and one representative of teaching and research), and two for one-year terms (one representative of large-animal practice and one representative of the Armed Forces or public health work). Thereafter, elections shall be so arranged as to

maintain the representation as specified under (a).

b) Duties.—It shall be the duty of this committee: (1) to consider all developments relating to veterinary medicine from a long-range viewpoint, to be alert to the changing needs for and demands upon the profession, both private practice and government and institutional work, and make recommendations to the House of Representatives and Executive Board how these changing requirements can best be met for the over-all welfare of the profession; (2) to act in an advisory capacity to the House of Representatives on all matters referred to it; (3) to make a detailed study of reports from association committees and representatives in advance of the annual session, and be prepared to make recommendations to the House on any reports or portions thereof; (4) and, through the Chairman, to act as the voice of the House of Representatives in presenting recommendations from the delegates or members to the Executive Board.

STUDENT CHAPTER ACTIVITIES

Iowa State Class of 1950.—Of the 67 graduating seniors of the Iowa State College School of Veterinary Medicine, 55 are married and 62 are veterans of World War II. The total number of years spent in training for their profession is 423.65 years or 6.33 years per man; and the total time of service in the armed forces is 204 years, or an average of 39.6 months for each man. The average age of the class of 1950 is 28.7 years. The youngest member of

the class, Anthony Riepma, Spencer, is 21; the oldest, C. J. Pfow, Mason City, is 40. The 55 married students have a total of 60 children. John G. Killiam, Burlington, has the distinction of serving the longest time in the armed forces, with seventy-two months of service. He has attended college for seven years, and will practice in Stacyville, Iowa.

S/LLOYD L. BATES, *Senior Representative.*

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Minnesota Chapter.—The Veterinary Medical Club of the University of Minnesota meets on the first Wednesday of each month of the school year. The following officers were elected



Members of the 1950 graduating class of the School of Veterinary Medicine, Iowa State College, with their wives and children. A number of the children were in school at the time the picture was taken.

at the meeting on April 5: Ithel Shipper, president; R. Bruce Hohn, vice-president; John F. Larson, secretary; L. J. Hanson, treasurer; and Glen Shubert, president-elect.

Program Chairman Paul Lundgren, of the junior class, arranged for the following speakers during the past year: Dr. W. J. Breckenridge (Ph.D.), curator of the Museum of Natural History at the University of Minnesota, presented films and a discussion of the wildlife in the state; Dr. Fairchild, member of the Gorgas Institute of Panama, told of diseases of animals and their connection with human health in Panama; Mr. J. L. Sinicum, of the Master Eye Foundation, discussed the work and care in training Master Eye dogs; Mr. George Ghostley, raiser of world famous R.O.P. chickens, told of the veterinarian's role in the poultry industry; football movies were presented by Mr. John Ronning, backfield coach at the University; Mr. Ray Peterson, representative of the Upjohn Company, presented a film and demonstration on the use of gel-foam in surgery; Dr. Maurice B. Visscher, professor and head of the Department of Physiology at the University of Minnesota Medical School, reported on the antivivisectionists and their work in combating animal experimentation.

Dr. Ralph Kitchell is faculty advisor to the club. Total membership is 110.

s/JOHN F. LARSON, Secretary.

Ohio Chapter.—The Ohio State Student Chapter of the AVMA held its annual appreciation and recognition banquet at the Deshler-Wallick Hotel in Columbus on May 6, 1950. The AVMA diplomas



The quartet that participated in entertainment was (left to right): Robert Denham, William Edgar, Carl Busch, and Joe Theyerl.

were awarded to all eligible seniors and the following awards were presented: the Alpha Psi award to the outstanding junior, Mark E. Davenport, president-elect of the Chapter; the Omega Tau Sigma award, James R. Diehl, senior; the Borden Award, for the senior having the highest



Left to right—Major Norman Imrie; Dr. Walter Krill, dean; and Dr. R. E. Rebrassier, secretary of the veterinary college and president of the Ohio State Veterinary Medical Association.

point hour for the first three years in the veterinary college, Robert Houser; Women's Auxiliary of the Ohio State Student Chapter, for senior who has done most to promote the governmental and social activities of the University, to J. Guthrie Blue.

Recognition was given those members who have helped promote the school magazine, the *Speculum*, which is published quarterly, especially to Jack Martin for his work as editor in chief of the magazine.

Major Norman Imrie spoke on "Do What You Can, Where You Are, With What You Have." President Deal presented President-Elect Mark E. Davenport to the Chapter, who officially closed the banquet.

s/TOM FREAS, Secretary.

Missouri Chapter.—At the April 10 meeting of the Veterinary Club of the University of Missouri, Mr. S. L. Bickal, director of the Fort Dodge pharmaceutical laboratories, spoke on the "Veterinarian's Task in Maintaining the Health of the Nation's Livestock." He also discussed the history of hog cholera virus and serum production, and showed motion pictures of various conditions in farm animals, some animal surgery, and Newcastle disease in a flock of geese.

s/THOMAS D. O'BRIEN, Secretary.

Washington Chapter.—On March 6, members of the Washington State Student Chapter of the AVMA heard Dr. R. G. MacKintosh, delegate to the House of Representatives, tell of the Detroit meeting. The following visiting veteri-

narians, who were on the campus to attend an advisory board meeting, also addressed the group: Drs. LaMar Gaw, president of the state Association; Archie Phelps, vice-president of the state Association; Robert Montgomery; Robert Prior, Sr.; and Mervin McKenzie. The films "Diagnosis of Peripheral Nerve Endings" and "Peripheral Nerve Surgery" were also shown.

On March 28, Dr. Herbert Eastlick discussed "Chicken Embryo Wing and Leg Bud Grafts" (with illustrations).

Professor Fort, chairman of the Department of Dairy Husbandry, University of Idaho, addressed the group at the April 6 meeting on "The Veterinary Practitioner and His Need for Good Public Relationship." He listed a few of the common faults of the rural practitioner and suggested how they could be corrected.

Officers elected at the April 27 meeting are Harry Bonello, president; Bob Carlson, vice-president; Lukas Sprinker, secretary; Tom Pelley, treasurer; John Schmidt, publicity manager; and Jin Pickerel, athletic manager. Guest speaker was Mr. Rube Everely, who told about his travels in South America and some of the opportunities for veterinarians in that country.

Social activities of the spring semester included the senior banquet, a barbecue, pot luck supper, and the annual open house.

S/CHARLES E. CHILDS, *Secretary.*

WOMEN'S AUXILIARY

Mrs. Runnells, Recorder for Auxiliary House of Representatives.—Mrs. Russell A. Runnells, 511 Bailey St., East Lansing, Mich., is recorder for the Auxiliary House of Representatives. Many will remember Mrs. Runnells as the efficient chairman of women's activities of the



Mrs. Russell A. Runnells

AVMA convention in Detroit in 1949. Mrs. Runnells has served as president of the Women's Auxiliary to the Michigan Veterinary Medical Association and has been active on committees of organization connected with schools at Virginia Polytechnic Institute, Iowa State College, and Michigan State College. The recorder of the House of Representatives records the business transacted at the meeting of the House and submits a report to the general session of the Auxiliary. Mrs. Runnells will accredit each delegate from the affiliated auxiliaries and will call the roll at the meeting of the House on Tuesday, August 22, at 9:30 a.m., at the Miami Beach meeting. All interested women are invited to attend this meeting but only accredited delegates will have a vote on business brought before the session.

S/(MRS. V. H.) FLORENCE MILLER, *President.*

Michiana Auxiliary.—On May 11, members of the Auxiliary to the Michiana Veterinary Medical Association entertained the women attending the Michiana Clinic at a tea at the Hotel LaSalle. Guest speaker was Dr. LaTourette Stockwell, Michigan City, Ind., who spoke of her impressions of Ireland, its people, their customs and folklore, as she saw them during her extended visit to that country.

Mrs. Roy W. Elrod and Mrs. Lee Davisson, wives of the state veterinarians of Indiana and Michigan, respectively, poured. The table was beautifully appointed and was centered with an arrangement of white gladioli. Mrs. Julius Fishler, Elkhart, was general chairman of the affair, and was assisted by Mrs. Frank R. Booth, Elkhart, and Mrs. Roy Westcott, Constantine, Mich.

S/MRS. JAMES E. CARVER, *President.*

North and South Carolina Auxiliaries.—The women's auxiliaries to the North and South Carolina veterinary medical associations held a joint meeting at the Ocean Shore Hotel at Myrtle Beach, S. Car., May 1-2, 1950. A Mixer was held the evening of April 30. At the luncheon, Mrs. V. H. Miller, president of the Women's Auxiliary to the AVMA, explained the activities, projects, and organization of the Auxiliary. The auxiliaries held separate business sessions. Mrs. C. E. Nicks, Elkin, presided at the meeting of the North Carolina Auxiliary. It was voted to give two bonds to the veterinary school of Georgia to be used for books or magazines. It was decided that all three sections of the state should be represented with state officers. The following were elected to office: Mrs. W. D. Collins, president; Mrs. E. F. Boyette, vice-president; Mrs. T. S. Williams, secretary-treasurer; and Mrs. Bruce H. Staton, delegate to the Auxiliary House of Representatives.

Mrs. J. H. Moore, Charleston, S. Car., pre-

sided at the business session of the Women's Auxiliary to the South Carolina Veterinary Medical Association. It was voted to make an effort to include every South Carolina veterinarian's wife as an auxiliary member. The following officers will serve during the ensuing year: Mrs. F. P. Caughman, president; Mrs. L. D. Rodgers, vice-president; Mrs. R. L. Willis, secretary; and Mrs. W. F. Rawlinson, treasurer.

The members of the auxiliaries joined their husbands for a buffet dinner and bingo party. Tuesday morning, the women enjoyed a tour of the Brookhaven Gardens.

s/(Mrs. V. H.) FLORENCE MILLER, *President*.

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Texas Auxiliary.—On June 8-9, members of the Women's Auxiliary to the State Veterinary Medical Association of Texas enjoyed a luncheon at The Oaks in College Station, and brunch at the Glass Door.

s/MRS. H. T. BARRON,
Chairman, Program Committee.

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Utah Auxiliary.—The Women's Auxiliary to the Utah Veterinary Medical Association met at the Hotel El Escalante June 8-9, 1950. After the business meeting, they were entertained at a luncheon, tours to the iron mines and cedar breaks, and at the annual banquet.

s/MRS. W. H. HENDRICKS, *Secretary*.

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Washington Student Chapter Auxiliary.—The Women's Auxiliary to the Washington State Student Chapter of the AVMA has an active membership of 75 and meets twice a month. They have had a successful year with lively parties and worthwhile educational programs. In October, 90 wives attended the "get acquainted party." A zany quiz show was presented and a quartet dressed in outlandish costumes furnished material for musical questions. Of special interest was the April 17 meeting at which Mrs. E. Wegner, the faculty advisor for the Auxiliary and the wife of the former dean, was guest of honor. The officers are Thelma Law, president; Anita Garner and Evelyn Hartle, vice-presidents; Betty Toole and Joanne Strandberg, secretaries; and Gloria Ohlson and Verle Reed, treasurers.

s/(MRS. RAYMOND M.) THELMA LAW,
President.

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Students Receiving the Auxiliary Award for 1950.—Senior veterinary students who have recently received the award given by the Women's Auxiliary to a student making a special contribution which advances the standing of the veterinary college on the campus during his or her junior and senior years are:

Mr. J. Guthrie Blue, The Ohio State University, because of his participation in a wide range of campus activities and his high scholastic rating, has brought credit to the College of

Veterinary Medicine. Among his many extra-curricular activities, Mr. Blue was delegate from OSU to the AVMA convention in Detroit and was second place winner of the Moss essay contest of the AAHA.

Mr. Roger Feldman, Iowa State College, was chosen through the Student Council of the Student Chapter of the AVMA. Mr. Feldman has served on a number of committees both as member and chairman. He was instrumental in the inauguration of a fall banquet for the Division and has been active in the work of the student chapter publication, *The I.S.C. Veterinarian*.

Mr. Gail Hawley, Michigan State College, because of his activities on the veterinary council. Mr. Hawley has given freely of his time and efforts in directing and presenting the evening entertainment at Michigan State College Veterinary Conference for the past two years. As the winner of the first prize in the Moss essay contest on ethics from his school and also winner of the first prize in competition with the essays from all veterinary schools, he was given an all-expense paid trip to the AAHA meeting in Denver to present his essay.

Mr. Robert L. Judkins, Tuskegee Institute, was chosen by members of the senior class and all members of the faculty of the School of Veterinary Medicine, for teaching classes as an occasion to bring out the relationship of veterinary medicine to science and everyday living. He has prepared clinic specimens, slides, and body fluids of clinic animals for class material and, through his exemplary conduct, has done much to contribute to a better understanding and appreciation of the field of veterinary medicine and the caliber of student in veterinary medicine at Tuskegee Institute.

Mr. James W. Newberne was selected by the Committee on Awards at Alabama Polytechnic Institute. Mr. Newberne, an outstanding student, took an active interest in student activities. By his excellent conduct and cooperative attitude, he has set an excellent example for not only the students in the veterinary school but also for all students on the API campus.

Mr. Johnnie Lee Reeves, Texas A. & M. College, through his fine moral character and excellent academic standing, and his participation in numerous activities on the campus, has done much to advance the standing of the veterinary school. Mr. Reeves, besides his many other activities, served as chairman for the School of Veterinary Medicine of the All-College Day committee; this program is put on entirely by the students in the various schools.

Mr. Walter J. Sickles was selected by the faculty of the New York State Veterinary College for, through his active interest in student activities, his part as an outstanding pitcher for the Cornell baseball team, and his excellent con-

duct, he has set an example for all students on the campus.

S/(MRS. V. H.) FLORENCE MILLER, *President*.

APPLICATIONS

The listing of applicants conforms to the requirements of the administrative by-laws—Article X.

First Listing

ALSON, M. C.

120 Howard St., Carthage, Mo.

D.V.M., Kansas State College, 1939.

Voucher: J. L. Wells.

ALSTROM, INGEMAN E.

Royal Veterinary College, Stockholm, Sweden.

D.V.M., Royal Veterinary College, Stockholm, 1948.

Vouchers: O. Norling-Christensen and F. M. Nilsson.

BIDDLE, GLEN

206 W. Butler St., Bryan, Ohio.

V.S., Ontario Veterinary College, 1910.

Voucher: F. J. Kingma.

BODENHEIMER, JOSEPH G.

Freeburn, Ky.

D.V.M., Ontario Veterinary College, 1914.

Voucher: R. Brown.

BOUTON, ALTON P.

Box 242, Saranac Lake, N.Y.

D.V.M., New York State Veterinary College, 1929.

Voucher: J. J. Regan.

BOYD, WILLIAM J.

526 Locust Pl., Sewickley, Pa.

V.M.D., University of Pennsylvania, 1933.

Voucher: R. C. Snyder.

BROWN, J. H.

276 W. Market St., Marietta, Pa.

V.M.D., University of Pennsylvania, 1932.

Voucher: R. C. Snyder.

CARLISLE, WILLIAM M.

Washington Ave., Hickory, Pa.

D.V.M., Chicago Veterinary College, 1918.

Voucher: R. C. Snyder.

COLE, EDWARD J.

40 Prospect St., Pawtucket, R.I.

D.V.M., Chicago Veterinary College, 1908.

Voucher: J. S. Barber.

DAVIS, KENNETH G.

508 N. Alder, Aberdeen, Wash.

D.V.M., Washington State College, 1944.

Voucher: J. L. Ellis.

FISER, JOHN E.

Clearwater, Kan.

D.V.M., Kansas State College, 1942.

Voucher: O. W. Morris.

GLASS, HARRY M.

229 E. 60th St., New York 22, N.Y.

D.V.M., New York State Veterinary College, 1935.

Voucher: J. J. Regan.

GOLDWASSER, HARRY I.

56-12 Roosevelt Ave., Woodside, L.I., N.Y.

D.V.M., New York State Veterinary College, 1935.

Voucher: J. J. Regan.

GOMUTPUTRA, CHOOMPHORN

International Center, Michigan State College,

East Lansing, Mich.

D.V.M., University of the Philippines, 1941.

Vouchers: C. S. Bryan and F. W. Young.

HEDGES, N. D.

109 Main St., Russellville, Ky.

D.V.M., Indiana Veterinary College, 1921.

Voucher: R. Brown.

HURD, JOHN M.

Box 287, Schleswig, Iowa.

D.V.M., Kansas State College, 1934.

Voucher: F. B. Young.

JESSEN, BORGE

Forum, Guldager, Denmark.

D.V.M., Royal Veterinary and Agricultural College, Copenhagen, 1948.

Vouchers: O. Norling-Christensen and N. O. Rasbech.

KELLY, PATRICK J.

19233 James Couzens Hwy., Detroit 35, Mich.

D.V.M., Ontario Veterinary College, 1925.

Voucher: B. J. Killham.

KITCHEN, ROBERT H.

R.D. 4, New Castle, Pa.

V.M.D., University of Pennsylvania, 1946.

Voucher: R. C. Snyder.

KULP, HENRY W.

Box 127, Lansdale, Pa.

V.M.D., University of Pennsylvania, 1946.

Voucher: R. C. Snyder.

LEE, DANA H.

N. Main St., Lancaster, N. H.

V.S., Ontario Veterinary College, 1931.

Voucher: F. E. Allen.

McNAY, GARRETT H.

Leon, Iowa.

D.V.M., Iowa State College, 1936.

Voucher: F. B. Young.

MARKS, WARREN R.

Emmetsburg, Iowa.

D.V.M., Iowa State College, 1938.

Voucher: F. B. Young.

MARTIN, JOHN E.

53 Beverly Ave., East Lansdowne, Pa.

V.M.D., University of Pennsylvania, 1942.

Voucher: R. C. Snyder.

MENBLOWSKI, B.

P.O. Box 186, Ada, Minn.

M.R.C.V.S., Royal (Dick) Veterinary College, 1947.

Voucher: B. S. Pomeroy.

MILLER, GEORGE G., JR.

1321 S. Broadway, Denver 10, Colo.

D.V.M., Colorado A. & M. College, 1940.

Voucher: J. W. Harrison.

MILLER, HERBERT E.

1801 S. Bayshore Lane, Miami 33, Fla.

- D.V.M., Ohio State University, 1916.
Voucher: V. L. Bruns.
- MITAT, JUAN A.
Animas #453, altos, Havana, Cuba.
D.V.M., University of Havana, 1948.
Vouchers: L. Garcia-Robiou and M. Stincer.
- MORRIS, EDWARD S.
111 N. Pearl St., Brockton 55, Mass.
D.V.M., New York State Veterinary College, 1933.
Voucher: C. L. Blakely.
- MURPHY, C. F.
Buda, Ill.
D.V.M., Kansas State College, 1940.
Voucher: A. G. Misener.
- NELSON, WILLIAM Q.
Inwood, Iowa.
D.V.M., Iowa State College, 1941.
Voucher: F. B. Young.
- O'CONNELL, HARRY J.
6 West, State Capitol, Madison 2, Wis.
D.V.M., McKillip Veterinary College, 1918.
Voucher: B. A. Beach.
- PAIGE, CHESTER A.
P.O. Box 1026, Lee St. Ext., Alexandria, La.
D.V.M., Kansas State College, 1932.
Voucher: R. B. Lank.
- PAIGE, ROSS S.
P.O. Box 1026, Lee St. Ext., Alexandria, La.
D.V.M., St. Joseph Veterinary College, 1921.
Voucher: R. B. Lank.
- REECE, CHESTER L.
103 S. 1st St., Savannah, Mo.
D.V.S., St. Joseph Veterinary College, 1911.
Voucher: J. L. Wells.
- ROBINSON, JACK E.
Clayton, Del.
D.V.M., Ontario Veterinary College, 1941.
Voucher: E. L. Symington.
- STRAIN, CLARENCE B.
Dunkerton, Iowa.
D.V.M., McKillip Veterinary College, 1913.
Voucher: F. B. Young.
- STURROCK, ALEXANDER P.
Box 285, Waterford, Pa.
D.V.M., New York State Veterinary College, 1917.
Voucher: R. C. Snyder.
- TERRY, JOHN W.
68 N. Village Ave., Rockville Centre, L.I., N.Y.
D.V.M., New York State Veterinary College, 1934.
Voucher: J. J. Regan.
- THOMAS, JOSEPH A.
34 Lander St., Newburgh, N.Y.
D.V.M., New York State Veterinary College, 1929.
Voucher: J. J. Regan.
- WALKER, ASA L.
P.O. Box 1232, Jackson, Tenn.
D.V.M., Texas A. & M. College, 1938.
Voucher: H. W. Nance.

Second Listing

- BENN, ROBERT K., 505 Leonhardt Bldg., Oklahoma City 2, Okla.
CONNOR, FRANK E., Morris, Ill.
NELSON, LEROY E., Briceyn, Minn.
TROUT, MAHLON, 303 Marshall St., Salisbury, Md.
WILSON, E. W., Caswell Ave., Derby Line, Vt.

1950 Graduate Applicants

First Listing

The following are graduates who have recently received their veterinary degree and who have applied for AVMA membership under the provision granted in the Administrative By-Laws to members in good standing of junior chapters. Applications from this year's senior classes not received in time for listing this month will appear in later issues. An asterisk (*) after the name of a school indicates that all of this year's graduates have made application for membership.

Ohio State University

All of the following applicants, with the exception of those otherwise noted, were vouchered by Drs. C. D. Diesem and H. M. Mauger.

- ARDERY, DAVID H., D.V.M.
R.R. 4, Greensburg, Ind.
Vouchers: R. E. Rebrassier and C. D. Diesem.
- BEAR, GEORGE T., D.V.M.
855 Center St., Ashland, Ohio.
Vouchers: F. J. Kingma and C. R. Smith.
- BICHOLT, WILLIAM E., D.V.M.
Rockford, Ohio.
- BLUE, JAMES G., D.V.M.
R.R. 1, Flora, Ind.
Vouchers: R. E. Rebrassier and C. D. Diesem.
- BORST, LAWRENCE M., JR., D.V.M.
324 Lincoln Way W., South Bend, Ind.
- BROWN, ROBERT L., D.V.M.
Box 1051, Staunton, Va.
Vouchers: J. D. Grossman and F. R. Koutz.
- BUCKLEY, EDWARD K., D.V.M.
527 E. Washington St., Lisbon, Ohio.
Vouchers: W. R. Krill and H. M. Mauger.
- BUSCH, CARL J., D.V.M.
R.D. 3, Canton, Ohio.
Vouchers: C. H. Clark and F. J. Kingma.
- CARR, WILLIAM S., D.V.M.
Lebanon, Ohio.
Vouchers: W. G. Venzke and C. D. Diesem.
- CARR, WOODROW W., D.V.M.
185 Miller Ave., Apt. 4, Columbus 5, Ohio.
- CLINGER, PHILIP C., D.V.M.
Rt. 1, Rochester, Ind.
- CRILL, DAVIDSON E., D.V.M.
2939 Woodhill Rd., Cleveland 4, Ohio.
Vouchers: F. R. Koutz and C. D. Diesem.
- CURTIS, JESSE C., JR., D.V.M.
R.R. 1, Kenton, Ohio.
Vouchers: W. R. Krill and C. D. Diesem.

- CUSTIS, ROBERT J., D.V.M.
Main St., New Vienna, Ohio.
Vouchers: D. O. Jones and C. D. Diesem.
- DEAL, HAL R., D.V.M.
Milton Junction, Wis.
Vouchers: J. H. Helwig and C. D. Diesem.
- DIEHL, JAMES R., D.V.M.
c/o Dr. L. P. Bailey, Piqua, Ohio.
- DOUDNA, JACK M., D.V.M.
Santa Rosa, Fla.
- EARLY, DAVID O., D.V.M.
Mishicot, Wis.
- EDGAR, WILLIAM C., D.V.M.
c/o Dr. L. A. Burkey, Sugar Creek, Ohio.
Vouchers: V. L. Tharp and F. R. Koutz.
- ENDRIZZI, NICK, D.V.M.
Spencer, W. Va.
- ENSIGN, ROBERT S., D.V.M.
Mishicot, Wis.
- EVERSOLE, WILLIAM H., D.V.M.
427 N. Main St., New Carlisle, Ohio.
Vouchers: J. C. Range and C. D. Diesem.
- FARRELL, ROBERT L., D.V.M.
2596 Clermont Dr., Apt. D, Columbus 10, Ohio.
- GEUE, EDWARD A., D.V.M.
Rt. 2, Snohomish, Wash.
- GREGG, JACK H., D.V.M.
2802 Sherwood Rd., Columbus, Ohio.
Vouchers: J. D. Grossman and C. D. Diesem.
- GUNNING, LEROY G., D.V.M.
c/o Badger & Vaupel Vet. Med. Hosp., Rt. 54
N., Kankakee, Ill.
Vouchers: C. R. Smith and F. L. Holycross.
- HAGLEY, JAMES M., D.V.M.
495 Piedmont Rd., Columbus, Ohio.
- HAY, WILLIAM L., D.V.M.
458 McPherson Ave., Lima, Ohio.
Vouchers: W. R. Krill and C. D. Diesem.
- HEADLEY, HOWARD G., D.V.M.
756 S. Chesterfield Rd., Columbus 9, Ohio.
Vouchers: F. L. Koutz and C. D. Diesem.
- HOPACKER, HENRY J., D.V.M.
518 Jackson St., Charleston, Ill.
Vouchers: R. E. Rebrassier and C. D. Diesem.
- HOUSER, ROBERT G., D.V.M.
c/o Dr. S. K. Andreassen, Menomonie, Wis.
- JONES, JAMES E., D.V.M.
66 N. Burgess Ave., Columbus 4, Ohio.
- KENNEDY, EDWARD J., D.V.M.
Miami, Ohio.
Vouchers: F. L. Holycross and C. D. Diesem.
- KLEPFINGER, NOLAN W., D.V.M.
Spencer, Wis.
- LIES, JOHN S., D.V.M.
Ft. Recovery, Ohio.
- LUCKETT, JOSEPH C., D.V.M.
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Vouchers: V. L. Tharp and C. D. Diesem.
- LYMAN, JOHN, JR., D.V.M.
23204 Chardon Rd., Euclid 17, Ohio.
Vouchers: R. D. Jones and C. D. Diesem.
- MACINNIS, GORDON A., D.V.M.
645 Quinby Ave., Wooster, Ohio.
- MACKEY, HORACE W., D.V.M.
Marion, Ky.
Vouchers: J. H. Helwig and R. W. Redding.
- MARTIN, JOHN G., D.V.M.
1315 Oakview Rd., Ashland, Ky.
Vouchers: W. R. Krill and C. D. Diesem.
- MASTERSON, RALPH A., D.V.M.
421 Sweigart St., New Lexington, Ohio.
- MILLER, ROBERT L., D.V.M.
189 Sherman Ave., Ashland, Ohio.
Vouchers: F. L. Holycross and C. R. Smith.
- MITCHELL, PAUL J., D.V.M.
2301 Grasmere Ave., Columbus 11, Ohio.
Vouchers: H. M. Mauger and F. J. Kingma.
- MOTYCKA, LEWIS M., D.V.M.
Box 11, Latchie, Ohio.
- PALMER, CLAYTON S., D.V.M.
Stewart, Minn.
- PARRETT, CAREY M., D.V.M.
Milford, Ind.
Vouchers: A. F. Schalk and D. O. Jones.
- POSTLE, DONALD S., D.V.M.
1452 N. High St., Columbus, Ohio.
Vouchers: R. E. Rebrassier and W. R. Krill.
- PRICE, DONALD A., D.V.M.
Experiment Station, Sonora, Texas.
Vouchers: J. D. Grossman and C. D. Diesem.
- QUINLAN, THOMAS J., D.V.M.
2775 Allegheny Ave., Columbus 9, Ohio.
Vouchers: W. R. Krill and F. R. Koutz.
- RICHARDS, EDWIN D., D.V.M.
R.F.D. 1, Mineral Ridge, Ohio.
- RODGERS, VERNON A., D.V.M.
249 Miles St., Akron 6, Ohio.
Vouchers: R. E. Rebrassier and C. D. Diesem.
- SAX, NORMAN, D.V.M.
10509 Clairdon Ave., Cleveland, Ohio.
- SCHNEIDER, DALE E., D.V.M.
2610 Fulton Rd., N.W., Canton, Ohio.
- SCHUBERT, ROBERT L., D.V.M.
3123 13th Ave., Columbus 3, Ohio.
Vouchers: F. R. Koutz and R. E. Rebrassier.
- SEGALL, SAMUEL, D.V.M.
536 Falls Ave., Youngstown 2, Ohio.
Vouchers: E. J. Catcott and C. D. Diesem.
- SMITH, JAY B., D.V.M.
107 W. Sacra Via, Marietta, Ohio.
- SOLOMON, JOSEPH A., D.V.M.
2841 Hampshire Rd., Cleveland Heights, Ohio.
- THOMPSON, ORVILLE C., D.V.M.
Rt. 3, Bowling Green, Ohio.
Vouchers: V. L. Tharp and C. D. Diesem.
- WALTER, WILLARD G., D.V.M.
Drake Rd., Strongsville, Ohio.
- WEARLY, W. KEITH, D.V.M.
224 W. Woodruff Ave., Columbus 1, Ohio.
Vouchers: E. J. Catcott and C. D. Diesem.
- WEIMER, JOHN R., D.V.M.
Bethany, W. Va.
Vouchers: E. J. Catcott and C. D. Diesem.
- WELLS, ROBERT T., D.V.M.
Box 602, Pennville, Ind.

WENGER, JOHN B., D.V.M.
3123 Cleveland Ave., N.W., Canton, Ohio.
WHITEHEAD, CHARLES E., D.V.M.
Rt. 1, Falmouth, Ky.
Vouchers: V. L. Tharp and D. O. Jones.
WURM, MELVIN A., D.V.M.
Rt. 3, Westerville, Ohio.
ZIEGLER, FLOYD M., D.V.M.
1471 E. Columbus St., Columbus 6, Ohio.
Vouchers: J. H. Helwig and C. D. Diesem.

Quebec Veterinary School

DESROSIER, PAUL, D.V.M.
Bromptonville P.O. Box 653, Cte Richmond,
Quebec.
Vouchers: J. P. Villeneuve and P. Genest.
JOLICOEUR, GERALD, D.V.M.
Ste-Genieve-de-Batiscan, Cte Champlain, Que-
bec.
Vouchers: J. P. Villeneuve and P. Genest.

Texas A. & M. College*

ALBRIGHT, DAN J., D.V.M.
Box 2512, College Station, Texas.
Vouchers: A. A. Lenert and H. E. Redmond.
BALENTINE, DON T., D.V.M.
Rt. 2, Alvarado, Texas.
Vouchers: J. C. Swaim and A. A. Lenert.
BERINGER, JOHN R., D.V.M.
104 St. Cloud Rd., San Antonio, Texas.
Vouchers: A. A. Lenert and R. P. Marsteller.
BOSTWICK, MALCOLM O., D.V.M.
328 W. Madison St., Bastrop, La.
Vouchers: F. P. Jaggi, Jr., and W. V. Lumb.
BOTARD, RICHARD M., D.V.M.
R.F.D. 1, Box 18, Alice, Texas.
Vouchers: A. A. Lenert and F. P. Jaggi, Jr.
BRANDES, PAUL P., D.V.M.
R.F.D. 3, Weimar, Texas.
Vouchers: R. D. Turk and F. P. Jaggi, Jr.
CARGILL, HOWARD W., D.V.M.
Rt. 3, Bryan, Texas.
Vouchers: H. E. Redmond and A. A. Lenert.
CLARK, CAREY E., JR., D.V.M.
1001 N. Madison St., El Dorado, Ark.
Vouchers: J. C. Swaim and W. V. Lumb.
CLARKE, LOUIE P., JR., D.V.M.
112 E. Williams, Breckenridge, Texas.
Vouchers: G. T. Edds and D. F. Johnson.
CLEEKE, HARRIS N., D.V.M.
Box 994, College Station, Texas.
Vouchers: G. T. Edds and A. A. Lenert.
CLIFTON, WILLIAM W., D.V.M.
Rt. 3, Decatur, Texas.
Vouchers: H. E. Redmond and J. C. Swaim.
CLOONEY, FREDERICK B., D.V.M.
1601 Skinner Rd., Houston 10, Texas.
Vouchers: F. P. Jaggi, Jr., and P. W. Burns.
CORRETT, CHARLES M., JR., D.V.M.
Box 314, Raymondville, Texas.
Vouchers: F. P. Jaggi, Jr., and W. V. Lumb.
COULTER, JOSEPH B., JR., D.V.M.
4342 Boca Chica Blvd., P.O. Box 250, Brownsville, Texas.
Vouchers: J. C. Swaim and W. V. Lumb.
DOBBS, STEWART M., D.V.M.
910 Second St., Roscoe, Texas.
Vouchers: H. T. Barron and H. E. Redmond.
DRAPELA, CHARLES F., JR., D.V.M.
2202 Colquitt St., Houston 6, Texas.
Vouchers: F. P. Jaggi, Jr., and I. B. Boughton.
EGAN, WILLIAM F., D.V.M.
Box 468, Kingston, Texas.
Vouchers: A. A. Lenert and H. E. Redmond.
EMMETT, ROBERT A., D.V.M.
Box 7, Hamilton, Texas.
Vouchers: A. A. Lenert and W. C. Banks.
FLOWERS, ARCHIE I., D.V.M.
2919 S. Wayside Dr., Houston 3, Texas.
Vouchers: G. T. Edds and A. A. Lenert.
FOSTER, RICHARD W., D.V.M.
106 E. South St., Uvalde, Texas.
Vouchers: A. A. Lenert and H. E. Redmond.
GIBBENS, ROY, JR., D.V.M.
Box 1571, College Station, Texas.
Vouchers: W. V. Lumb and F. P. Jaggi, Jr.
GIEREL, LEROY H., D.V.M.
Box 1419, College Station, Texas.
Vouchers: J. C. Swaim and F. P. Jaggi, Jr.
GRIFFIN, THOMAS P., D.V.M.
508 E. Kingsbury, Seguin, Texas.
Vouchers: F. P. Jaggi, Jr., and J. C. Swaim.
HALLMARK, JAMES F., D.V.M.
418 Live Oak St., Dublin, Texas.
Vouchers: J. C. Swaim and F. P. Jaggi, Jr.
HARREL, CLIFTON H., D.V.M.
725 W. Richard, Kingsville, Texas.
Vouchers: A. A. Lenert and H. I. Barron.
HICKS, STANLEY G., D.V.M.
Box FF, Hobbs, N. Mex.
Vouchers: H. E. Redmond and J. C. Swaim.
HOBAN, JAMES E., D.V.M.
P.O. Box 1111, College Station, Texas.
Vouchers: W. V. Lumb and R. D. Turk.
HOLEKAMP, CONRAD T., D.V.M.
Box 547, Junction, Texas.
Vouchers: I. B. Boughton and H. E. Redmond.
HUGHES, ROBERT J., D.V.M.
Rt. 1, Box 63, Dickinson, Texas.
Vouchers: P. W. Burns and F. P. Jaggi, Jr.
IVY, WILMAN W., D.V.M.
Box 1768, College Station, Texas.
Vouchers: P. W. Burns and R. D. Turk.
JOHNSON, LESTER, D.V.M.
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Vouchers: J. C. Swaim and F. P. Jaggi, Jr.
JONES, JAMES P., D.V.M.
Box 87, Brady, Texas.
Vouchers: G. T. Edds and A. A. Lenert.
KEEN, FLOYD R., D.V.M.
Hugo, Okla.
Vouchers: W. V. Lumb and F. P. Jaggi, Jr.
KEIR, DAVID H., D.V.M.
2822 West Highway, McAllen, Texas.
Vouchers: J. H. Milliff and R. D. Turk.

KELSEY, JOE F., D.V.M.
125 E. Ave., Lawton, Okla.
Vouchers: A. A. Lenert and F. P. Jaggi, Jr.

KILGORE, ROBERT L., JR., D.V.M.
1202 Ave. E, N.W., Childress, Texas.
Vouchers: J. C. Swaim and F. P. Jaggi, Jr.

KING, HERBERT J., JR., D.V.M.
Seguin, Texas.
Vouchers: A. A. Lenert and J. H. Milliff.

MCADA, ACIE C., D.V.M.
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Vouchers: J. H. Milliff and A. A. Price.

MCCONNELL, STEWART J., D.V.M.
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MARTIN, EVERETT C., JR., D.V.M.
Box 89, Rt. 3, Bryan, Texas.
Vouchers: J. C. Swaim and F. P. Jaggi, Jr.

MASSEY, JAMES L., D.V.M.
655 Oakland St., Beaumont, Texas.
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MATHIS, BOB M., D.V.M.
Rt. 1, Box 268, Wichita Falls, Texas.
Vouchers: P. W. Burns and R. D. Turk.

MAYSE, BILLY R., D.V.M.
1507 S. Wall St., Brady, Texas.
Vouchers: F. P. Jaggi, Jr., and H. E. Redmond.

MEYER, HUBERT O., D.V.M.
1300 S. Main St., Las Vegas, Nev.
Vouchers: H. E. Redmond and W. V. Lumb.

NEVILLE, FRANCIS N., JR., D.V.M.
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Vouchers: A. A. Lenert and J. C. Swaim.

PETERMAN, WILLIAM B., D.V.M.
1316 Lee Ave., Fort Worth 6, Texas.
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PRINCE, RILLIUS E., JR., D.V.M.
200 Border St., Orange, Texas.
Vouchers: A. A. Lenert and F. P. Jaggi, Jr.

REEVES, JOHNNIE L., D.V.M.
1204 W. 10th, Austin 21, Texas.
Vouchers: P. W. Burns and I. B. Boughton.

RIDDLE, DONALD I., D.V.M.
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Box 185, Coolidge, Texas.
Vouchers: A. A. Lenert and W. V. Lumb.

ROUTH, SAMUEL C., JR., D.V.M.
R.R. 2, Ballinger, Texas.
Vouchers: D. F. Johnson, Jr., and H. A. Smith.

SIMPSON, ROSCOE E., D.V.M.
601 Barnes St., McKinney, Texas.
Vouchers: W. V. Lumb and P. W. Burns.

SOYARS, ERWIN L., D.V.M.
Sabinal, Texas.
Vouchers: R. D. Turk and H. E. Dale.

STEWART, WILLIAM H., D.V.M.
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Vouchers: J. C. Swaim and W. C. Banks.

THOMAS, GEORGE N., D.V.M.
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Vouchers: A. A. Lenert and J. C. Swaim.

THOMAS, SAUNDERS M., JR., D.V.M.
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TUMLINSON, ROBERT G., D.V.M.
R.R. 1, Cameron, Texas.
Vouchers: R. D. Turk and P. W. Burns.

WALLACE, HUGH M., JR., D.V.M.
Mound City, Mo.
Vouchers: H. E. Redmond and J. C. Swaim.

WILKINS, JOHN F., D.V.M.
P.O. Box 915, College Station, Texas.
Vouchers: H. I. Barron and W. V. Lumb.

WILLIAMSON, JACK H., D.V.M.
Lufkin, Texas.
Vouchers: A. A. Lenert and J. C. Swaim.

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3501 Harvard, Dallas 5, Texas.
Vouchers: H. E. Redmond and W. V. Lumb.

YOUNG, ROBERT J., D.V.M.
1714 Richmond Rd., Houston, Texas.
Vouchers: J. C. Swaim and H. I. Barron.

YOUNG, VARLEY F., D.V.M.
Box 1122, College Station, Texas.
Vouchers: H. I. Barron and G. T. Edds.

Second Listing

Kansas State College

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BARCLAY, JAMES M., D.V.M., Brooklyn, Iowa.

BARGER, LESTER J., D.V.M., R.F.D. 2, Merced, Calif.

BARETT, RALPH L., D.V.M., Holisington, Kan.

BICKLEY, CHARLES C., D.V.M., Apt. 3-D, Goodnow Cts., Manhattan, Kan.

BISHOP, RALPH L., D.V.M., R.F.D. 2, Benton, Kan.

BOOBAR, ROBERT C., D.V.M., 57-D Hilltop Cts., Manhattan, Kan.

BRAKE, BEN R., D.V.M., Blue Rapids, Kan.

BYRD, SYDNEY R., D.V.M., T No. 38 Campus Cts., Manhattan, Kan.

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AMONG THE STATES AND PROVINCES

Alabama

State Conference.—The twenty-sixth annual conference for veterinarians was held June 8-10, 1950, at the School of Veterinary Medicine, Alabama Polytechnic Institute, Auburn. The scientific program follows.

Dr. E. F. Thomas, School of Veterinary Medicine, University of Georgia, Athens: "Postparturient Disease."

Dr. A. V. Hardy (M.D.), director of laboratories, Florida State Board of Health, Jacksonville: "Human Brucellosis" and "Relation of Animal Salmonellosis to Public Health."

Dr. J. E. Scatterday, public health veterinarian, State Board of Health, Jacksonville, Fla.: "Florida's Veterinary Public Health Program."

Dr. J. H. Steele, chief, Veterinary Public Health Services, Communicable Disease Center, U. S. Public Health Service, Atlanta, Ga.: "Relation of Creeping Eruption in Human Beings in the Southeast to Hookworms in Dogs and Cats" and "Modern Concept of Veterinary Public Health."

Dr. J. H. Steele was moderator of a panel on "Communicable Disease Problems of Veterinary Public Health Significance." Others on the panel were Drs. James Watt (M.D.), medical

director, U.S. Public Health Service, Louisiana State University Medical School, New Orleans; A. V. Hardy; D. G. Gill (M.D.), state health officer, Montgomery, Ala.; and J. S. Cass, U. S. Public Health Service, Savannah, Ga.

Dr. W. F. Irwin, Tulsa, Okla.: "Uterine Disease of the Bitch" and "Feline Practice."

Dr. D. L. Proctor, Lexington, Ky.: "Problems of Light Horse Practice" and "Equine Dental Surgery."

Dr. M. W. Allam, School of Veterinary Medicine, University of Pennsylvania, Philadelphia: "Canine Foreleg Paralysis," "Surgical Diseases of the Canine Vagina," and "Perineal Herniorrhaphy."

Dr. F. H. Fox, Department of Medicine, Cornell University, Ithaca, N.Y.: "Some Surgical Procedures in Cattle Practice," "Cattle Surgical Demonstration," and "Therapeutics of Some Problem Diseases in Dairy Cattle."

Dr. L. R. Davis, parasitologist, BAI laboratory, Auburn: "Portable Pens for Raising Dairy Calves."

Dr. C. D. Van Houweling, director of professional relations of the AVMA, Chicago: "Building Professional Recognition Through the AVMA."

Dr. J. W. Hazelrig, chief of meat inspection, Jefferson County Health Department, Birmingham: "A City Meat Inspection Program."

Dr. G. M. Crews, Tampa, Fla.: "Effect of Phosphoric Acid Cleaners on Bacterial Counts in Milk and on Incidence of Mastitis."

Dr. L. E. Starr, public health veterinarian, State Department of Public Health, Atlanta, Ga.: "Use of Avianized Rabies Vaccine."

Dr. E. S. Tierkel, officer in charge, Rabies Control Branch, Communicable Disease Center, U. S. Public Health Service, Atlanta, Ga., was moderator of a panel on "Rabies." Participating members of the panel were Drs. Roy Moore, U.S. Fish and Wildlife Service, Atlanta, Ga.; L. E. Starr; J. E. Scatterday; and W. B. Castleberry, county rabies inspector, Jefferson County Health Department, Birmingham.

Dr. W. N. Konde: "Radiology."

Dr. B. F. Hoerlein: "Intestinal Surgery."

Dr. J. A. McBee: "Amputation."

Dr. J. F. Hokanson: "Tendon Resection."

Dr. L. O. Llewellyn: "Casting Cattle."

Dr. Rex G. Fluharty, Special Training Division, Oak Ridge Institute of Nuclear Studies, Oak Ridge, Tenn.: "Medical Aspects of Radiation."

Dr. G. J. Cottier, professor of poultry, Alabama Polytechnic Institute: "Poultry Problems."

Drs. Konde, Hoerlein, McBee, Hokanson, and Llewellyn are members of the faculty of the Alabama Polytechnic Institute School of Veterinary Medicine.

Dr. R. S. Sugg, dean of the School of Vet-

erinary Medicine, presided at the conference dinner.

s/R. S. SUGG, dean.

Arkansas

First Woman Veterinarian Retires.—After 37 years of active practice, Dr. Elinor McGrath (CVC '10), the first American woman veterinarian, has retired and is now residing in Hot Springs. Dr. McGrath entered small animal practice in Chicago after receiving her D.V.M. degree and in 1947 was still the only woman practitioner in that city.

California

Orange County Association Organized.—At a meeting of Orange County veterinarians in April, the Orange County Veterinary Association was organized. A constitution and by-laws were adopted, and the following officers were elected: Drs. Mark B. Lindsey, president; J. H. Bowes, vice-president; and J. H. Bowes, secretary-treasurer. All officers reside in Santa Ana.

The association will meet on the second Tuesday of each month.

s/J. H. BOWER, Secretary.

Colorado

Denver Rabies Control Program.—Immunization clinics, staffed with a veterinarian, a health department nurse or sanitarian, and volunteer workers, vaccinated dogs on a mass basis against rabies, from March 17 through March 22, in an attempt to control an outbreak of the disease before it is transmitted to human beings. Since Jan. 1, 1950, 55 animals in the four counties concerned were found to have rabies. Dr. Harry A. Sauberli is coordinator of the Metropolitan Denver Emergency Rabies Control Program.

s/C. M. OLSON.

District of Columbia

Andrew S. Deming Deceased.—Many veterinarians in federal and state government service will learn with regret of the death in Washington, D.C., of Andrew S. Deming, 49, an administrative assistant in the U.S. Department of Agriculture, on April 9, 1950. Mr. Deming, while not a veterinarian, had been an assistant to the chief of the tuberculosis-eradication division for about twenty-five years and, during much of that time, had charge of the records of approved and accredited veterinarians authorized to participate in federal-state programs on tuberculosis and brucellosis.

s/A. E. WIGHT.

Idaho

Magic Valley Association.—The Magic Valley Veterinary Medical Association met on May 4,

1950, at the Park Hotel in Twin Falls. The following program was presented.

Dr. A. P. Schneider, Boise: "Idaho Bureau of Animal Industry."

Dr. T. R. Myers, Boise: "Activities of the Federal Veterinarians in Idaho."

Dr. H. F. Meyers, University of Wyoming, Laramie: "Livestock Disease Control Laboratory."

The topic for group discussion was diseases peculiar to Magic Valley.

Officers elected at this meeting are Drs. K. K. Shott, Buhl, president; and Dale Thornburg, Burley, secretary.

S/A. P. SCHNEIDER, *Resident Secretary*.

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Southwest Association.—The Southwest Idaho Veterinary Medical Association held its quarterly meeting April 20, 1950, at Caldwell, with approximately 30 veterinarians in attendance. The discussion, which followed a banquet, was on problems of southwestern Idaho, and the speaker for the evening was Dr. Leo B. Snyder, Boise, who presented a paper on "Intramedullary Pinning."

Officers elected at this meeting were Drs. John Williams, Caldwell, president; and Arthur P. Schneider, Boise, reelected secretary-treasurer.

After the banquet, the women were entertained in the home of Dr. and Mrs. John Williams.

S/ARTHUR P. SCHNEIDER, *Secretary*.

Illinois

Chicago Association.—On May 9, 1950, the Chicago Veterinary Medical Association met at the Palmer House to hear Dr. L. R. Davenport, consultant in veterinary medicine, Illinois Department of Health, Springfield, discuss "Activities of the Committee on Animal Disease Control." Rabies vaccination was discussed and the group voted against a trial of the new avianized vaccine until it is fully licensed.

S/ROBERT C. GLOVER, *Secretary*.

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New Veterinary Medicine Building Started.

—A new step in the advancement of veterinary education has been made with the start of construction of a new building for the College of Veterinary Medicine at the University of Illinois.

The new building, to cost approximately \$1,800,000, will be constructed of steel and reinforced concrete with red brick exterior, and will be completely modern in design and equipment. It is hoped it will be ready for occupancy by September, 1951.

Housed in the new structure will be the college administration and the veterinary medical departments of anatomy, pathology and hygiene, and physiology and pharmacology, comprising student laboratories, lecture rooms, research laboratories, animal rooms, staff offices, an auditorium, a museum, and a library.

A second new building, which will house the activities of the department of veterinary clinical medicine, is being planned.

Established in 1944, the College of Veteri-



Architect's drawing of the new building of the College of Veterinary Medicine at the University of Illinois, on which construction has started.

nary Medicine admitted classes of 24 students each in 1948 and 1949. Larger classes will be accepted when the new buildings have been constructed. Six years of training are required of the students.

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Ring Test Project.—Dr. Roy A. Thompson, superintendent of the Illinois Division of Livestock Industry, and Dr. N. H. Howlett, veterinarian in charge for the U.S. BAI in Illinois, are making plans for a joint experimental project whereby composite milk samples will be collected from herds at the time of calf vaccination and also when tuberculin tests are being applied. These milk samples will be subjected to the ring test to provide an adjunct to the brucellosis-eradication program.

Indiana

Michiana Clinic.—Members of the Michiana Veterinary Medical Association were hosts to more than a hundred veterinarians from Indiana, Ohio, Michigan, and Illinois, at a clinic May 11, 1950, at the Mishawaka Sale Pavilion. Speakers and their demonstrations and discussions follow:

Dr. George Jeffrey, Bronson, Mich.: "Dehorning Methods and Procedure."

Dr. Maurice Weldy, Wakarusa, Ind.: "Rumotomy."

Dr. A. C. Dufour, Lagrange, Ind.: "Amputation of the Claw in Foot Rot."

Dr. E. S. Weisner, Goshen, Ind.: "Practical Pointers on Poultry Practice."

Dr. R. Bigelow, Wakarusa, Ind.: "Swine Obstetrics and Baby Pig Diseases" and "Hoof-Trimming Technique (Bovine)."

Dr. George Freier, Benton Harbor, Mich.: "Ear Canker Operation on the Dog."

Dr. W. G. Magrane, Mishawaka: "Entropion Surgery on the Dog."

Dr. J. J. Fishler, Elkhart, Ind.: "Technique for Packing Anal Pouches in the Dog."

Dr. F. R. Booth, Elkhart, Ind.: "Correct Tail Amputations for Various Breeds of Dogs."

Dr. J. M. Shellenberger, Mishawaka: "Restrains for Dogs and Cats."

Dr. James E. Carver, Michigan City, Ind.: "Ear Trimming on the Dog."

Dr. K. H. Fraser, Niles, Mich.: "Subcuticular Suturing."

Dr. H. J. Magrane, Jr., Mishawaka: "Hospital Case (Canine)."

The Bronzewood Room of the Hotel LaSalle in South Bend was the scene of a banquet for members, guests, and their wives following the clinic. Dr. E. S. Weisner, of Goshen, was master of ceremonies and presented the guests of honor which included Dr. Roy W. Elrod, Indiana state veterinarian, and Mrs. Elrod; Dr. Lee Davisson, Michigan state veterinarian, and Mrs. Davisson; Dr. R. C. Klussendorf, assistant executive secretary of the AVMA; Dr. C. Harvey Smith, president of the Indiana Veterinary Medical Association, and Mrs. Smith; Dr. Paul V. Howard, president of the Michigan Veterinary Medical Association, and Mrs. Howard; Dr. O. N. Christensen, Wilmette, Ill.; and Dr. George W. Gillie, former U.S. congressman.

The following served as chairmen of the various committees: Dr. Stanton Williamson, South Bend, general chairman; Dr. Harry Magrane, Mishawaka, local affairs; Dr. Julius Fishler, Elkhart, Ind., small animal section; Dr. Roy Westcott, Constantine, Mich., large animal section; and Dr. Frank Booth, Elkhart, presented the participating veterinarians.

s/R. W. WORLEY, *Secretary*.

Central Association.—A film on better anesthesia was shown by Dr. George Burch at the May 3 meeting of the Central Indiana Veterinary Medical Association in Indianapolis. Dr. Ingemar Alstrom, of the Royal Veterinary College of Stockholm, Sweden, was guest of honor at this meeting.

Officers of the association are Drs. H. D. Cain, Carmel, president; J. L. Axby, Indianapolis, vice-president; and R. J. Hoskins, Indianapolis, secretary-treasurer.

s/J. L. KIXMILLER, *Resident Secretary*.

Northeastern Association.—At the May meeting of the Northeastern Veterinary Medical Association, in the Van Orman Hotel at Fort Wayne, the round-table discussion centered on the losses of baby pigs and sows. The meeting was well attended.

s/J. L. KIXMILLER, *Resident Secretary*.

Northwestern Association.—Thirty-eight veterinarians and their wives attended the dinner meeting of the Northwestern Indiana Veteri-

nary Medical Association in the Union Building on the Purdue Campus, May 18. After the dinner, Mr. Chas. Robertson, attorney, spoke on the legal aspects of veterinary practice.

s/J. L. KIXMILLER, *Resident Secretary*.

Iowa

Cedar Valley Association.—On May 8, the Cedar Valley Veterinary Association held a dinner meeting at Black's Tea Room in Waterloo, with 44 veterinarians from 15 counties in attendance. Dr. G. R. Burch, New Augusta, Ind., gave an illustrated talk on veterinary research. Dr. Joe W. Giffce, Cedar Rapids, federal veterinarian on swine disease control, told of experiments with immune serums in the treatment of transmissible gastroenteritis of swine. Dr. Harry S. Lames, Dysart, led the discussion.

s/F. B. YOUNG, *Secretary*.

Cedar Valley Clinic.—The Eastern Iowa Veterinary Association's sixteenth annual all-day practitioners clinic, sponsored by the Cedar Valley veterinary association, was held May 18, 1950, at the Dairy Cattle Congress Hippodrome in Waterloo.

Operative surgeons were Drs. Morris Larson, Keystone; John W. Carey, West Liberty; Maurice J. Johnson, Ames; and R. B. Hippenbecker, Fennimore, Wis.

The various sections of the clinic, and the veterinarians who participated in each follow:

Bovine Section: Drs. Joe Sexton, Sumner; Darrell White, Williamsburg; E. C. Ritter, Sumner; Lester Proctor, Oelwein; George Gitz, Jr., Clear Lake; Ernest Dahlquist, Fayette; M. F. Frevert, West Union; Robert Savage, Monticello, Wis.; R. M. Mossman, Dysart. Dr. Hippenbecker demonstrated his technique of the median line cesarean operation; Dr. S. H. McNutt, Madison, Wis., discussed diagnosis of *Vibrio foetus* infection; and Dr. John Herrick, Ames, showed specimens of stages of pregnancy and of pathologic conditions resulting in sterility.

Avian Section: Drs. C. D. Lee, Ames; Melvin Osburn, Independence; G. Senior, Des Moines; Paul Neuzil, Blairstown; and Fred Crow, Iowa City.

Equine Section: Drs. Isaac E. Hayes, Waterloo; George T. Smith; Maynard L. Spear, Hampton; and E. A. Ralson.

Restraint: Drs. R. B. Helming, Cresco; C. D. Sours, Nora Springs; T. T. Bowstead, DeWitt; I. P. Irwin, Iowa City; and H. F. Hanna, Springville. Dr. R. C. Dockstader brought his cattle chute and demonstrated its many uses.

Diagnostic Consultants: Drs. Forrest Brutsman, Traer; H. C. Smith, Sioux City; H. E. Pinkerton, Ft. Dodge; Frank Breed, Lincoln, Neb.; Joe Giffce, Cedar Rapids; J. D. Ray, Omaha, Neb.; Paul C. Bennett, Ames; Raymond Hoffer, Cedar Rapids; John Herrick, Ames; and S. H. McNutt, Madison, Wis.

Swine Section: Drs. Allan J. Murphy, Winthrop; W. Tietz, Eldora; A. McGrath, Jesup; L. J. Magnall, Tripoli; J. Sloan, Independence; Francis O'Donnell, Strawberry Point; A. J. McIntosh, La Porte City; and D. Unga, Dyersville. Demonstrations included vena cava bleeding, and cesarean, cryptorchid and scrotal, and umbilical hernia operations.

Ovine Section: Drs. W. L. Andrews, Milton; C. R. Fry, Centerville; and R. E. Rasmussen, Bloomfield.

Handy Devices: Drs. C. Bassler, Ainsworth; W. O'Brien, Ryan; C. E. Hunt, Mt. Pleasant; Birk C. Louthier, Hopkinton; and L. Wood, Malcolm.

S/H. D. OSBORNE, *Chairman*.

East Central Society.—Members of the East Central Iowa Veterinary Medical Society enjoyed a dinner meeting at the Tipton Country Club under the auspices of the Cedar County Veterinary Association. Thirty-six veterinarians and their wives attended. Dr. George R. Fowler, Ames, professor and head, Department of Veterinary Surgery, presented an illustrated discussion of aspects of veterinary surgery. Dr. Joe W. Giffey, Cedar Rapids, federal veterinarian on swine disease control gave an informative talk on prevalent swine diseases with special attention to hemorrhagic dysentery and virus enteritis of pigs. Discussion of Dr. Giffey's paper was led by Dr. John W. Carey, West Liberty; Dr. George A. White, Riverside; and Dr. V. M. Reinhart, Norway, Iowa.

S/WAYNE H. THOMPSON, *Secretary*.

Southeastern Association.—Twenty-eight veterinarians from 15 counties attended the dinner meeting of the Southeastern Iowa Veterinary Association at the Hotel Harlan, Mount Pleasant, on May 2, 1950.

Dr. J. D. Ray, Omaha, Neb., showed motion pictures taken on the European tour. Dr. Sergejs Filipovs, graduate of a veterinary school in Latvia, was introduced to the group. Dr. Filipovs is associated in practice with Dr. R. E. Rasmussen, Bloomfield, secretary of the Association.

Officers elected at this meeting are Drs. J. S. Potter, Muscatine, president; Warren Kilpatrick, Mediapolis, vice-president; and R. E. Rasmussen, reelected secretary-treasurer.

S/R. E. RASMUSSEN, *Secretary*.

Kansas

State Association.—The twelfth annual conference for Kansas veterinarians was held June 2-3, 1950, at the School of Veterinary Medicine, Kansas State College, Manhattan. The scientific program follows; speakers not identified are members of the staff of the School of Veterinary Medicine.

Dr. E. R. Frank: "Bovine Surgery" and "Specialized Topics of Surgery."

Dr. L. T. Railsback, Ellsworth, Minn.: "Swine Obstetrics" and "Cattle Obstetrical Practice."

Dr. W. F. Irwin, Tulsa, Okla.: "Feline Practice" and "Uterine Surgery of the Bitch."

Dr. A. D. Weber (Ph.D.), associate dean and director, Agricultural Experiment Station: "Beef Cattle Research."

Dr. E. J. Splitter: "The Status of Veterinary Research at K.S.C."

Dr. L. M. Hutchings, Department of Veterinary Science, Purdue University, Lafayette, Ind.: "Baby Pig Diseases" and "Bovine Brucellosis."

Mr. L. E. Harris, director of research and control department, Norden Laboratories, Lincoln, Neb.: "New Developments in Chemotherapeutic Agents."

The women enjoyed a coffee hour at the home of Mrs. E. J. Frick, a bridge party, Dutch luncheon, freezer locker demonstration, and the banquet.

S/E. E. LEASURE, *Dean*.

Maine

State Association.—The Maine Veterinary Medical Association met in Bangor on April 4, 1950, with 52 members and guests present. Speaker of the evening was Dr. Donald W. Baker, professor of veterinary parasitology at New York State Veterinary College, Cornell University. His subject was "Adventures in Veterinary Parasitology" (with illustrations).

The following were admitted to membership in the association: Drs. William S. Bartlett, Naples; Dana Dingley, Farmington; Alphonsas Kalvaitis; Ray Newman, Island Falls; Russell Pinfold, Brunswick; and John Woodcock, Dexter.

S/STANFORD D. MERRILL, *Secretary*.

Massachusetts

Danish Pathologist Studying at Angell Memorial Hospital.—Dr. Aage Thordal-Christensen, Copenhagen, Denmark, recently arrived at the Angell Memorial Animal Hospital of the Massachusetts S.P.C.A., where he plans to spend a year studying canine pathology and participating in the distemper research program which is being conducted at the hospital's Department of Pathology, under the supervision of Dr. David L. Coffin. Dr. Christensen, who is an assistant professor of special pathology at the Royal Veterinary and Agricultural College in Copenhagen, has been granted a year's leave of absence by the College in order to take part in the program.

S/M. J. STEARNS, *Director Public Relations*.

State Association.—The regular monthly meeting of the Massachusetts Veterinary Association was held April 19, 1950, at the Hotel Statler, Boston. Guest speaker of the evening

was Dr. Thomas Frawley of the Harvard Medical School and the Peter Bent Brigham Hospital, Boston. Dr. Frawley discussed ACTH and cortisone, describing some of their recent clinical experiences in the use of these hormones and illustrated his talk with lantern slides.

At the May 17 meeting of the association, Dr. W. N. Plastring, University of Connecticut, Storrs, presented an illustrated discussion of "Vibriosis in Cattle," and Dr. G. B. Schnelle, assistant chief of staff, the Angell Memorial Animal Hospital, discussed "The Diagnosis of Certain Infectious Diseases in Dogs" (with illustrations).

S/C. LAWRENCE BLAKELY, *Secretary*.

Michigan

Dr. Chaddock Completes Lecture Series.—Dr. T. T. Chaddock, of the Royal Mink Ranch, Bridgeport, has completed a series of six lectures, on the management and diseases of fur-bearing animals, to the senior veterinary medical students at the Michigan State College School of Veterinary Medicine, East Lansing. Plans are being made to repeat this series each year.

S/C. S. BRYAN, *Dean*.

Dr. Smith Receives Appointment.—Dr. Connor D. Smith (MICH '30), Standish, was appointed by Governor Mennen Williams to the State Board of Agriculture, which is the governing body of Michigan State College. Dr. Smith will fill the vacancy on the Board created by the death of Mr. E. B. More in April. His term will expire Dec. 31, 1953.

S/C. S. BRYAN, *Dean*,
School of Veterinary Medicine.

Minnesota

Twin City Society.—On May 5, about 60 members and guests of the Twin City Veterinary Medical Society met at the School of Veterinary Medicine, University Farm, St. Paul. Dr. E. S. Tierkel, Veterinary Public Health Service, U.S. Public Health Service, Atlanta, Ga., spoke on "The Control of Rabies." The subject was further discussed by Drs. R. L. West, Minnesota State Livestock Sanitary Board; H. E. Erickson, St. Paul Health Department; Wilbur Nelson, epidemiologist, Minneapolis Department of Health; and Gaylord Anderson, director, School of Public Health, University of Minnesota.

S/B. S. POMEROY, *Secretary*.

Missouri

Southeast Association.—The Southeast Missouri Veterinary Medical Association held its annual spring meeting at the office of Dr. J. W. Trowbridge at Malden on April 19, 1950. The morning session was devoted to a small

animal clinic conducted by Dr. Wayne Sheets, Farmington. A dinner of barbecued pork and chicken was followed by a business meeting and the afternoon session. Dr. H. E. Curry, state veterinarian, told of his recent trip to Mexico and the foot-and-mouth disease situation there. Dr. J. B. Champlin, assistant veterinarian in charge, state BAI, answered questions on foot-and-mouth disease. Dr. Kenneth Whittington, Memphis, Tenn., discussed reproductive diseases of small animals; and Dr. A. E. Bott, East St. Louis, Ill., showed motion pictures of animals.

S/F. A. STEPP, *Secretary*.

Dr. Smith Joins University Staff.—On April 1, 1950, Dr. Stanley N. Smith (NYC '22), who has long been in practice in Columbia, joined the staff of the University of Missouri School of Veterinary Medicine. Dr. Smith was appointed as special lecturer and clinician in veterinary medicine.

The faculty of the School of Veterinary Medicine meets for a dinner meeting at the Daniel Boone Hotel once a month. At these meetings, motion pictures and colored slides of various phases of wildlife have been shown. This gives the staff members an opportunity to meet on a social basis.

S/A. H. GROTH, *Director*.

Nebraska

Ak-Sar-Ben Association.—The Ak-Sar-Ben Veterinary Medical Association met at the Paxton Hotel, Omaha, on May 8, 1950. Dr. Frank B. Young, Waukee, Iowa, secretary of the Iowa state Association, discussed "Problems of General Practice," and Dr. E. P. Anderson, state veterinarian, also addressed the group. Officers elected at this meeting are Drs. Larry E. McClaughry, Arlington, president; Hugh C. Fitch, Missouri Valley, Iowa, vice-president; and Irvin E. Peterson, Omaha, secretary-treasurer.

S/PAUL L. MATTHEWS, *Resident Secretary*.

New York

New York City Association.—The regular meeting of the Veterinary Medical Association of New York City, Inc., was held at Skytop of the Hotel Statler, on May 3, 1950. A clinical-pathological conference was conducted by Dr. Frank Bloom, associate in pathology, Long Island College of Medicine. Dr. H. C. Stephenson, New York State College of Veterinary Medicine, Cornell University, opened the discussion. The following were announced as new members: Drs. J. D. Leaning, Leo Vine, and Leonard Weiss.

S/C. R. SCHROEDER, *Secretary*.

North Carolina

State Officers.—The North Carolina Veterinary Medical Association met with the South

Carolina Association at Myrtle Beach, S. Car., April 30-May 2, 1950 (program listed under S. Car.). This was the forty-ninth annual meeting of the North Carolina Association.

Officers elected for the ensuing year are Drs. C. W. Young, Mocksville, president; G. R. Armstrong, Charlotte, president-elect; T. A. Monk, Sr., Goldsboro, vice-president; J. H. Brown, Tarboro, secretary-treasurer; J. W. McKee, member of Executive Committee. Dr. J. H. Brown was recommended for resident secretary of the AVMA.

s/J. H. BROWN, Secretary.

Ohio

Section on Veterinary Preventive Medicine and Public Health Organized.—Thirteen Ohio veterinarians organized within the Ohio Public Health Association a Section on Veterinary Preventive Medicine and Public Health including men in local health work, state and federal veterinarians, and Drs. J. H. Helwig and D. O. Jones from the Department of Preventive Medicine at The Ohio State University College of Veterinary Medicine. It is hoped that this will prove a medium for veterinarians in public health and regulatory work to meet and discuss mutual problems. The group is also open to veterinary practitioners.

Officers are Drs. Warren P. S. Hall, Toledo, chairman; Joseph H. Drayer, Columbus, vice-chairman; and Allan M. Greenlee, secretary.

s/ALLAN M. GREENLEE, Secretary.

Veterinarians Honored by Fraternity.—The



Fig. 1.—Mr. Ward F. Winkler (left) presents Gamma Award to Dr. I. F. Huddleson.

Omega Tau Sigma veterinary fraternity has, for the past four years, honored one outstanding veterinarian in the country and two alumni at the annual pledge banquet. This year, Dr. I. F. Huddleson, East Lansing, Mich., was awarded the national Gamma Award for his "many years



Fig. 2.—Dr. C. A. Pleuger (left), Mr. Ward F. Winkler, Dr. I. F. Huddleson, and Dr. H. M. Mauger.

of diligent and unselfish devotion in the field of brucellosis."

The two alumni winners were Dr. C. A. Pleuger, a general practitioner, and Dr. Harry M. Mauger, assistant professor of anatomy at The Ohio State University. These awards were made on the basis of their intense interest and their numerous contributions from a financial, as well as a professional, standpoint.

s/WARD F. WINKLER, Vice-President,
Omega Tau Sigma.

Conference for Veterinarians.—The nineteenth annual conference for Ohio veterinarians was held June 14-16, 1950, at The Ohio State University, Columbus. The program follows; speakers not otherwise identified are members of the University faculty.

Dr. David K. Detweiler, Department of Pharmacology, School of Veterinary Medicine, University of Pennsylvania, Philadelphia: "The Clinical Diagnosis and Management of Cardiac Disease."

Dr. Fred J. Kingma: "Clinical Use of Antifilarial Compounds."

Dr. Richard L. Rudy: "Resection of the Soft Palate" and "Luxation."

Dr. W. W. Armistead, professor of veterinary medicine and surgery, A. & M. College of Texas, College Station: "Mechanical Factors Affecting the Healing of Surgical Wounds."

Dr. C. R. Cole: "Histoplasmosis in Animals."

Dr. John A. Prior (M.D.): "Histoplasmosis in Man."

Dr. F. W. Wittich (M.D.), the American College of Allergists, Minneapolis, Minn.: "Animal Allergy—Clinical Manifestation, Diagnostic Approach, and Clinical Management, Including Use of Antihistamines in Therapy."

Dr. Calvin C. Turbes, Department of Veterinary Anatomy, University of Minnesota School of Veterinary Medicine, St. Paul: "Experimentally Produced Encephalomyelitis."

Dr. E. J. Catcott: "Ophthalmoscopic Observations of the Canine Ocular Fundus."

Brig. Gen. J. A. McCallam, V.C., chief, Veterinary Division: "The Veterinarian and His Importance to Our National Defense."

Dr. Louis L. Madsen (Ph.D.), head, Animal Husbandry Department, Utah State Agricultural College, Logan: "Nutritional Requirements of Beef Cattle" and "Nutritional Deficiencies."

Mr. Paul Teegardin, Polled Shorthorn breeder, Ashville: "Feeding and Management of the Purebred Herd."

Mr. Paul Hackett, general manager, Agricultural Lands, Inc., London, Ohio: "Feeding and Management of the Commercial Herd."

Dr. W. P. Garrigus (Ph.D.), Department of Animal Husbandry, University of Kentucky, Lexington: "Feeding and Management of Fattening Cattle."

Dr. E. W. Burroughs (Ph.D.), associate, the Ohio Agricultural Experiment Station: "Some Unknown Factors in Beef Cattle Feeding."

Mr. Paul Gerlaugh, associate, the Ohio Agricultural Experiment Station: "Beef Production Patterns Are Very Elastic."

Dr. C. W. Gay was chairman of a panel on "Conditions Affecting Beef Cattle." Other members participating in the discussion were Drs. W. Burroughs, L. Madsen, W. Garrigus, and T. Sutton; and Messrs. P. Gerlach, P. Hackett, and P. Teegardin.

Dr. S. H. McNutt, Department of Veterinary Science, University of Wisconsin, Madison: "Viral Diseases of Swine" and "Factors Affecting Fertility in Cattle."

Dr. J. D. Salisbury, Department of Veterinary Science, Purdue University, Lafayette, Ind.: "The Use of Antibiotics."

Dr. Aubrey B. Larsen, Regional Animal Disease Laboratory, Auburn, Ala.: "The Diagnosis and Control of Johne's Disease."

Dr. W. L. Ingalls: "Public Health Aspects of Poultry Diseases."

Dr. D. S. Bell: "Problems in the Sheep Industry of Interest to the Veterinarian."

The session on beef cattle nutrition was sponsored by the Robert Gould Research Foundation in cooperation with the Institute of Nutrition and Food Technology and the College of Veterinary Medicine, The Ohio State University.

S/R. E. REBRASSIER, *Chairman, Conference Committee.*

Veterinary Dosages in Medical Dictionary.—

The excellent presentation of veterinary medical subjects in the new Blakiston's Gould Medical Dictionary which was reviewed in the JOURNAL

(Nov. 1949, p. 383) was largely due to the work of Dr. N. L. Siplock, of Cleveland Heights, Ohio. He prepared the 16 pages of veterinary medical dosages, and assisted throughout as the veterinary editor.

Ontario

Social Activities at Veterinary College.—On April 22, 1950, an enjoyable social evening was held at the Ontario Veterinary College. Dr. F. J. Cote, chairman, explained the three-fold purpose of the event—to celebrate the golden wedding anniversary of Dr. and Mrs. W. J. R. Fowler (March 28), the silver wedding anniversary of Principal and Mrs. A. L. MacNabb (April 22), and to give the college faculty and staff an opportunity to entertain the members of the graduating class.

Dr. A. A. Kingscote, adequately disguised as "Dr. Fool You," began the evening's fun with a series of sleight-of-hand tricks. This was followed by the O.V.C. quartette—all members of the class of 1950, who have been in demand at various functions during their undergraduate careers.

In the absence of Dr. Fowler, who was indisposed, Mrs. Fowler graciously accepted flowers for herself and a walking stick for Dr. Fowler, presented to her by Dr. and Mrs. MacNabb. Dr. J. H. Ballantyne and Miss Patricia Moore then presented Dr. and Mrs. MacNabb with a silver tray and flowers.

The remainder of the evening was enjoyed in dancing, cards, and refreshments.

S/T. LLOYD JONES, *Resident Secretary.*

Pennsylvania

Keystone Association.—The Keystone Veterinary Medical Association met on April 26 in the University of Pennsylvania School of Veterinary Medicine. Dr. Guy Graybill, Pennsylvania BAI, discussed "Recent Developments in the Brucellosis Campaign."

S/R. C. SNYDER, *Secretary.*

Personal.—Charles W. Scheidy, Shartlesville, father of Dr. S. F. Scheidy of Drexel Hill, died at his home on May 28, 1950, at the age of 71 years. Active in community affairs, Mr. Scheidy was a school director in Upper Bern Township for the past thirty-nine years and had served on the council of Frieden's Lutheran Church for twenty-five years. He also served on the Berks County School Board, the Upper Bern Township School Board, and was a member of the Shartlesville Fire Company and of its relief association. Mr. Scheidy is survived by his widow, five children, including Dr. Scheidy, and two grandchildren.

Quebec

Canadian Association.—The second annual meeting of the Canadian Veterinary Medical Association will be held jointly with the annual

convention of the College of Veterinary Surgeons of the Province of Quebec, at the Windsor Hotel, Montreal, on Sept. 7-9, 1950.

The program will include a number of well-known speakers and the latest information on results of research in the field of veterinary medicine. One of the outstanding speakers, Professor Henri Simonnet, from the University of Paris, will speak on "The Role of Amino Acids in the Physiology of Rumination." A number of the papers will be on the part played by veterinarians in the conservation of the world's food supplies derived from livestock, and on the relation of nutrition to sterility.

Montreal, the convention city, is a combination of Old-World charm and twentieth-century progress. Many of its churches and museums were built in the seventeenth century, but the up-town shopping district is predominantly modern. Set in a mountain parkland, it offers many and varied opportunities for sight-seeing and recreation.

S/T. LLOYD JONES, Ontario Resident Secretary.

• • •

Veterinary Jurisprudence.—The reasons for having a chair of common law and legislation in a modern faculty of veterinary medicine are given in a scholarly article by Attorney Jacques Bousquet professor of legislation at the Ecole Vétérinaire de la Province de Québec, published in the French section of the *Canadian Journal of Comparative and Veterinary Science*. The speaker stressed both fundamental and special knowledge essential to a finished veterinary education because of the relationship of veterinarians' professional acts to a complex horizon—agriculture, marketing, imports and exports of animals and their products, food inspections, medicinal agents and narcotics, prevention of lawsuits, responsibilities to the client and the sick, aiding judges and juries in court procedures (expert testimony), general rights and privileges under the law, regulatory legislation (federal and provincial) and penalties for non-observance. These are a few among other legal details the veterinary student should be taught to prepare him for his coming professional life. The object of the chair is to prevent trouble—not to make unfinished lawyers.

South Carolina

North and South Carolina Associations.—The fortieth annual meeting of the South Carolina Association of Veterinarians was held in conjunction with the North Carolina Veterinary Medical Association (49th annual meeting) at the Ocean Forest Hotel, Myrtle Beach, S. Car., April 30-May 2, 1950. The scientific program follows.

Dr. J. Laverne Davidson, the Upjohn Company, Kalamazoo, Mich.: "Anemias, with Suggestions Concerning Treatment in Small Animals."

Dr. E. A. Davis, Columbus, Ga.: "Everyday Problems of Cat Practice."

Dr. J. E. Green, School of Veterinary Medicine, Alabama Polytechnic Institute, Auburn: "Some Recent Advancements in Small Animal Medicine."

Dr. W. M. Coffee, LaCenter, Ky., president-elect of the AVMA: "General Practice" (with illustrations).

Dr. Thomas J. Jones, dean, School of Veterinary Medicine, University of Georgia, Athens: "Relation of Nutrition of Farm Animals to Veterinary Practice."

An open forum question box was conducted by Drs. W. M. Coffee, M. R. Blackstock, Spartanburg, S. Car.; G. J. Lawhon, Sr., Harts-ville, S. Car.; H. J. Rollins, Rockingham, N. Car.; and M. M. Leonard, Asheville, N. Car.

The women enjoyed a trip to Brookgreen Garden, bridge, a buffet supper, and bingo.

S/J. H. Brown, Secretary,
North Carolina Association.

Texas

Conference for Veterinarians.—The third annual conference for veterinarians conducted by the School of Veterinary Medicine of the A. & M. College of Texas was held at the College June 8-9, 1950. The following scientific program was presented.

Dr. W. L. Boyd, Division of Veterinary Medicine, University of Minnesota, St. Paul: "Diagnosis of Pregnancy in the Mare and the Cow" and "The Veterinarian and the Artificial Insemination Program of Dairy Cattle Breeding."

Dr. N. B. McCullough (M.D.), U.S. Public Health Service and assistant clinical professor of medicine, University of Chicago: "Human Brucellosis—Epidemiology, Diagnosis, Treatment."

Mr. D. W. Williams, vice-chancellor for agriculture, A. & M. system, College Station: "The Cattle Industry of South America."

Dr. A. G. Danks, professor and head, Department of Veterinary Surgery, Cornell University, Ithaca, N.Y.: "Diagnosis of Bone Disease with the Aid of the X-Ray" (with illustrations) and "Dairy Cattle Practice."

Dr. L. C. Moss, professor and head, Department of Medicine, Colorado A. & M. College, Fort Collins: "Surgical Repair of Perineal Hernia" (with illustrations) and "Endocrinology in Small Animals."

Dr. H. G. Johnston, professor and head, Department of Entomology, A. & M. College of Texas: "Synthetic Insecticides."

Dr. J. H. Quisenberry, professor and head, Department of Poultry Husbandry, A. & M. College of Texas: "The Poultry Industry and the Veterinarian."

Mr. Arthur Stewart, lawyer and instructor, Department of Business and Accounting, A. & M. College of Texas: "Some Legal Aspects of Veterinary Medicine."

Dr. G. T. Edds, Department of Veterinary Physiology and Pharmacology, A. & M. College

of Texas: "The Antihistamines in Veterinary Practice."

The following films were shown: "An Ounce of Prevention," "Skeletal Fixation by Stader Splint," and "Swine Erysipelas."

s/R. D. TURK, *Chairman,
Committee for Conference.*

Utah

State Association.—The Utah Veterinary Medical Association met in the Hotel El Escalante, Cedar City, on June 8-9, 1950. The scientific program follows.

Dr. R. L. Burkhart, Pearl River, N.Y.: "Aureomycin Therapy in Veterinary Medicine" and "Rabies and Canine Distemper Viruses Modified by Chicken Embryo."

Dr. H. S. Cameron, School of Veterinary Medicine, Davis, Calif.: "Diseases of Reproduction in Dairy Cattle."

Dr. F. R. Mencimer, Ogden: "Surgery of the Teat."

Dr. McLloyd Killpack, Murray: "Diagnosis and Treatment of Traumatic Pericarditis."

Dr. R. B. Mericle, regional supervisor, Production and Marketing Administration, U.S. Department of Agriculture, Sacramento, Calif.: "Public Health Aspect of Poultry Evisceration Inspection."

Dr. J. Micuda, Kindness Hospital, Phoenix, Ariz.: "The Role of Whole Blood Transfusion in Veterinary Medicine" and "Small Animal Disease Problems."

Dr. Paul Christofferson, in charge of state laboratory, Provo: "Laboratory Procedures and its Practical Application in Everyday Practice."

Dr. H. S. Cameron, School of Veterinary Medicine, Davis, Calif.: "The California Veterinary Clinic."

Dr. Roy Nipko, Salt Lake City, was toastmaster at the annual banquet.

s/E. A. TUGAW, *Secretary.*

Wisconsin

Postgraduate Conference.—The scientific program of the Wisconsin postgraduate conference for veterinarians at the University of Wisconsin, Madison, on June 20-21, 1950, follows. Only guest speakers are identified, all others are faculty members of the University.

Progress in research on brucellosis, mastitis, bovine reproduction and sterility, trichomoniasis and other reproductive infections, calf pneumonia-enteritis, clinical medicine, parasites of farm animals, poultry diseases, fur animal diseases, and swine diseases were reported by Drs. D. T. Berman, E. V. Morse, B. A. Beach, J. B. Wilson, S. H. McNutt, J. Simon, G. R. Spencer, Louise Lombard, D. K. Sorensen, C. A. Brandly, T. Moll, M. Savan, H. K. Cohen, P. W. Phillips (Ph.D.), B. B. Morgan (Ph.D.), and C. A. Herrick (Ph.D.); the Misses Lois Jones, Louise Wipf, Nancy Winslow, Elizabeth Upton, Joan Belcher; and Messrs. R. P. Hanson, James Douglas, and P. R. Ellis.

Dr. F. E. Hull, head, Department of Animal Pathology, University of Kentucky, Lexington: "Thoroughbred and Light Horse Problems" and "Important Diseases of Sheep."

Dr. R. K. Froker: "Economic Aspects of Animal Diseases."

Dr. J. H. Steele, chief, Veterinary Section, Communicable Disease Center, U.S. Public Health Service, Atlanta, Ga.: "Human Health Hazards of Animal Diseases" and "World Scope of Veterinary Medicine."

Dr. C. P. Zepp, Sr., New York City, president of the AVMA: "Obstinate Skin Diseases of the Dog."

Dr. W. F. Guard, College of Veterinary Medicine, Ohio State University, Columbus: "Recent Developments in Large Animal Surgery."

Dr. H. T. Greene, Brook Hill Farm, Genessee Depot: "My Experiences in Eradicating Brucellosis."

Dr. J. T. Schwab, director, Division of Livestock Sanitation, Wisconsin Department of Agriculture, Madison, assisted by Dr. W. R. Winner, U.S. BAI, Madison, and the conference staff, conducted a question and answer session.

The following veterinarians conducted demonstrations: Drs. P. J. Brandly, poultry pathologist, Production and Marketing Administration, USDA, Washington, D.C., and P. R. Ellis, "Poultry Disease and Inspection"; Drs. G. R. Spencer and J. Simon, "Mastitis"; Dr. S. H. McNutt and Mr. H. K. Cohen, "Swine Gastroenteritis"; Dr. E. V. Morse, "Pyelonephritis"; Drs. B. B. Morgan (Ph.D.), J. B. Wilson, and B. A. Batlin, "*Vibrio foetus* Abortion"; Drs. C. A. Brandly, R. P. Hanson, and D. K. Sorensen, "Hypersensitive States"; Dr. D. T. Berman, Miss June Eberts, and Miss Martha Ibach, "Brucellosis."

Dr. C. P. Zepp, Sr., assisted by Drs. G. J. Marold, H. L. Marsh, and P. T. Candlin, conducted a small animal clinic. The large animal clinic was conducted by Dr. W. F. Guard, assisted by Drs. Sam Elmer, A. M. McDermid, and J. E. Lillesand.

s/C. A. BRANDY, *Chairman.*

Clinic on Surgery.—At an all-day clinic on veterinary surgery at Dr. Sam Elmer's animal hospital, on May 6, Dr. W. F. Guard, Ohio State University, Columbus, demonstrated surgical repair of a hernia in a calf, removal of infected glands from a colt, a cesarean operation on a Holstein-Friesian, and other operations on large animals now included in the repertoire of modern veterinary surgery. Dr. Guard was assisted by Drs. L. C. Ferguson, Ohio State University; and Dr. LeRoy Johnson, who is doing research on animal surgery at the Mayo Clinic in Rochester, Minn.

Commenting on the clinic, the *Wisconsin State Journal*, May 7, 1950, remarks "Only a few years ago, farmers suffered heavy mone-

tary losses because operations on animals were more or less unheard of . . . The veterinary surgeon, learning his profession through years of study and practice, and using tried and tested methods, is bringing relief from pain and illness to farm animals and pets, as well as providing protection against serious animal losses on farms."

Milwaukee Association.—On May 16, the Milwaukee Veterinary Medical Association met in the lecture hall of the Wisconsin Humane Society to hear Dr. Joseph Bock speak on "Toxicology and Blood Chemistry."

s/K. G. NICHOLSON, *Secretary*.

Northern Association.—The spring meeting of the Northern Wisconsin Veterinary Medical Association was held at the Hotel Swoboda, Sturgeon Bay, on May 24, 1950. Dr. C. A. Brandly, Madison, spoke on "Research in the Practice of Veterinary Medicine," and Dr. J. Simon, Madison, discussed "New Treatment for Mastitis."

s/WILLIAM MADSEN, *Secretary*.

Southeastern Association.—The Southeastern Wisconsin Veterinary Association held a dinner meeting on May 11 at Wulfs Island. After the business session, motion pictures were shown.

s/ROBERT CURTIS, *Secretary*.

FOREIGN NEWS

Philippine Republic

Annual Convention.—The Philippine Veterinary Medical Association held its twenty-seventh annual convention at the University of the Philippines in Quezon City, April 20-21, 1950. The following scientific program was presented.

Dr. M. Mondonede, College of Agriculture, U.P.: "Hog Cholera in Hog Production."

Dr. A. B. Coronel, Philippine BAI: "Progress in Hog Cholera Research."

Dr. D. B. Gapuz, BAI: "Carabao Hide as a Source of Leather."

Dr. A. C. Gonzaga, College of Veterinary Medicine, U.P.: "Some Observations on Artificial Insemination of Game Birds."

Drs. E. E. Acasio and P. G. Refuerzo, BAI: "Preliminary Observations on the Performance of Holstein-Friesians and Jerseys Under Alabang Conditions."

Drs. P. G. Refuerzo, E. E. Acasio, and R. Victuelles, BAI: "Sodium Cacodylate and Acarprin in Anaplasmosis and Piroplasmiasis."

Dr. A. C. Murriel: "The Influence of Penicillin and Streptomycin on the Preservation of Semen of the Bull."

Drs. Z. de Jesus and M. S. Tongson, College of Veterinary Medicine, U.P.: "Preventive Treatment Against Surra."

Drs. D. K. Oyzon and L. M. Yutuc, College of Veterinary Medicine, U.P.: "Comparative Resistance of Native with Two Imported Breeds of Chickens to *Ascaridia Lineata*."

Drs. F. San Agustin and A. M. Castillo, BAI: "A Survey of Brucellosis Among Hogs Slaughtered in the Manila Abattoir."

Dr. S. Alano, BAI: "Food Production and the Veterinary Profession."

The following officers were elected: Drs.



Dean Angel K. Gomez (standing) addresses a portion of the veterinarians at the twenty-seventh annual convention of the Philippine Veterinary Medical Association. Seated on the rostrum (left to right) are Dr. Tomas T. David, secretary-treasurer of the Association; The Honorable Fernando Lopez, vice-president of the Philippine Republic, guest of honor; and Dr. Bienvenido M. Gonzalez, president, University of the Philippines.

Vicente Ferriols, director of the BAI, Pandacan, Manila, president; Segundo Alano, member of the FAO, Department of Agriculture and Natural Resources, Manila, vice-president; and Nicolas Sevilla, acting chief, Animal Products Division, BAI, Pandacan, Manila, secretary-treasurer.

Twenty-two applicants were accepted into the Association at this meeting, the second of its kind held since the liberation of the Philippines.

Guest of honor was the Honorable Fernando Lopez, vice-president of the Republic of the Philippines, who delivered an inspiring speech on the role of the veterinary profession in the public health of the Islands and in the production of more animals for food and labor. He also suggested that veterinary medicine is the profession that must attract the youth of the Philippine Republic to rehabilitate the present agricultural and livestock problems.

s/JOSE B. ARANEZ, *Resident Territorial Secretary*.

Spain

Spanish Veterinary Club Wishes Literary Exchange with U.S. Students.—The following letter was received by Dr. W. A. Hagan, Dec. 24, 1949:

"Having written to the Casa Americana de

Madrid, asking to be put in contact with the veterinary class (students or graduates) of this country, in order to establish a cultural interchange of correspondence, books, magazines, etc., it was suggested that we write directly to you, and this is the reason for doing so.

This club, though veterinary, works from preference with small animals (chickens, ducks, rabbits, sheep, etc.), so we would much appreciate receiving anything of interest which you could send us, and in reciprocation place ourselves, as a club and as individuals, equally at your disposition for whatever you might like us to send you."

S/ALEJANDRO VILLASVERDE, Zaragoza, Spain.

Sweden

Animal Products Exports.—Animal products exported from Sweden to the United States must be accompanied by certificates signifying their fitness for human consumption. Such official certificates must be issued by the Royal Veterinary Board, Stockholm.

BIRTHS

To Dr. (OSU '45) and Mrs. E. W. Lohmeier, Sharonville, Ohio, a daughter, Lynne Marie, on Jan. 18, 1950.

Dr. (WASH '49) and Mrs. Don K. Shaffner, Dillon, Mont., announce the birth of a daughter, Sydney Ann, on March 4, 1950.

To Dr. (OVC '49) and Mrs. (OVC '49) James Archibald, Guelph, Ontario, a son, William Thomas, on April 21, 1950.

DEATHS

***John J. Arnold** (MICH '37), 33, New Castle, Ind., died in a private plane crash April 4, 1950. Dr. Arnold was head of Arnold Laboratories in New Castle, and was on a business trip at the time of the crash. Dr. Arnold was admitted to the AVMA in 1939. He is survived by his widow and four children.

Glenn R. Beavers (MC K '10), Strawberry Point, Iowa, died March 1, 1950. Dr. Beavers had been a member of the AVMA.

***Cleo J. Buchler** (KCVC '17), 55, Morton, Ill., was killed in an automobile accident in 1945. Dr. Buchler was a member of the AVMA.

Carl E. Call (ONT '05), Roachdale, Ind., died April 5, 1950. Dr. Call was the first veterinarian in Indiana to use hog cholera antiserum and virus.

***W. L. Christy** (IND '01), 76, Tonkawa, Okla., died April 27, 1950. Dr. Christy was a member of the Oklahoma Veterinary Medical Association and of the AVMA.

***R. E. Cochran** (MC K '00), Milwaukee, Wis., died early in March, 1950. Dr. Cochran

had been a member of the National Association of BAI Veterinarians and was a member of the AVMA for forty-eight years.

***Cecil J. Hester** (ALA '45), Winchester, Tenn., died (date unknown). Dr. Hester was admitted to the AVMA in 1945.

***W. H. Hoedt** (UP '09), 65, Narberth, Pa., died early in 1950. Dr. Hoedt, who was born in the Netherlands, had been employed by the U.S. Bureau of Animal Industry before establishing his practice at Narberth. Dr. Hoedt was admitted to the AVMA in 1942.

R. J. Kelly, Jr. (TEX '45), 28, Dallas, Texas, died Jan. 19, 1950, from injuries received in an automobile accident. Dr. Kelly had been associated with Dr. R. T. Dickinson for the past two years. He had been a member of the AVMA.

Rex I. Mann (GR '12), Coldwater, Mich., died on Jan. 8, 1950. Dr. Mann had retired from active practice.

***Guy L. O'Hara** (KCVC '18), 53, Merced, Calif., died March 31, 1950. Dr. O'Hara was a veteran of World War I and a member of the Officer's Reserve Corps from 1923 to 1932. He was admitted to the AVMA in 1929.

Benjamin H. Olds (OSU '11), Conneaut, Ohio, died Jan. 8, 1950. Dr. Olds had practiced in Conneaut for thirty-four years.

Robert Y. Oosten (MC K '16), Demotte, Ind., died (date unknown). Dr. Oosten, who was born in the Netherlands, had been a member of the AVMA.

Edward R. Owen (ONT '16), Rushville, Pa., died (date unknown). Dr. Owen had been engaged in dairy inspection and testing for tuberculosis.

John D. Quelland (KCVC '15), 58, Pierre, S. Dak., died Jan. 18, 1950. Dr. Quelland had practiced at Wolsey and Woonsocket before coming to Pierre.

Henry C. Simmons (TH '18), 54, Brookhaven, Miss., died on March 29, 1950, after a long illness. Dr. Simmons was state veterinarian of Mississippi, having served with the State Livestock Sanitary Board for thirteen years.

***Kirk W. Stouder** (ISC '05), 67, Ames, Iowa, died April 11, 1950. Dr. Stouder had been a member of the AVMA for forty-four years.

L. J. Stratton (CVC '13), Odebolt, Iowa, died Dec. 5, 1949. Dr. Stratton had been a member of the AVMA.

***J. Ralph Sullivan** (ALA '18), Montgomery, Ala., died several years ago (date unknown). Dr. Sullivan was a member of the Alabama Veterinary Medical Association and of the AVMA.

***Warren J. Taylor** (OSU '43), Xenia, Ohio, died (date unknown). Dr. Taylor was admitted to the AVMA in 1944.

*Indicates members of the AVMA.

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An' Related Topics

WATCH YOUR ENGLISH AND OURS

ITALICS (continued)

1) *In Lieu of Quotation Marks.*—Letters, words, or short phrases named as such may be, and commonly are, set in italics rather than between the standard quotation marks as in:

English *H* is often silent.
The silent "*H*" is confusing.
Licence is often misspelled, or
Do not misspell "*licence*."

2) *For Emphasis.*—The primary purpose of italicizing words or passages is, and always has been, to command attention to their importance in the hope of augmenting word power. The objection to the overuse of italics stems from their too liberal use in lieu of stronger or more meaningful wording. Yet, where the reason is apparent, setting apart words, phrases, and sentences in italics is acceptable.

3) *For Genera and Species.*—In the publications of the AVMA, italics are used for genera and species of animals, Protozoa, bacteria, parasites, rickettsiae, spirochetes, fungi, and plants, e.g., *Canis familiaris*, *Trichomonas foetus*, *Salmonella pullorum*, *Haemonchus contortus*, *Coxiella burnetii*, *Leptospira canicola*, *Trichophyton tonsurans*, *Cannabis indica*. When the genus is used alone, it is not italicized.

3) *For Foreign Terms.*—The AVMA publications italicize many foreign words and short phrases commonly inserted in English text, but here disunity can not be entirely avoided because a large number of foreign terms have long been accepted in the English vocabulary and more are in the process of being anglicized, which may or may not be regarded as English by different authorities. The following columns contain examples of AVMA usage in this connection:

<i>a priori</i>	addendum
<i>ad interim</i>	ad valorem
<i>bona fide</i>	aide de camp
<i>carte blanche</i>	clientèle

(Continued on p. 26)

COMING MEETINGS

Notices of Coming Meetings must be received by 8th of month preceding date of issue

New York State Veterinary Medical Society. Annual meeting. Saranac Inn, Saranac, N. Y., June 29-July 1, 1950. J. S. Halat, 1231 Gray Ave., Utica, N. Y., executive secretary.

Ontario Veterinary College. Refresher course. The Veterinary College, Guelph, Ont., July 5-18, 1950. A. L. MacNabb, Ontario Veterinary College, Guelph, principal.

Michigan State Veterinary Medical Association. Annual meeting. Michigan State College, East Lansing, Mich., July 6-7, 1950. B. J. Killham, Michigan State College, East Lansing, Mich., secretary.

Kentucky Veterinary Medical Association. Annual meeting. Seelbach Hotel, Louisville, Ky., July 12-13, 1950. Ross Brown, Department of Animal Pathology, University of Kentucky, Lexington 29, Ky., secretary.

Northwest Veterinary Medical Conference. Annual meeting. Winthrop Hotel, Tacoma, Wash., July 17-19, 1950. J. L. Ellis, 2022 E. 4th St., Olympia, Wash., secretary.

Virginia State Veterinary Medical Association. Summer meeting. Hotel Chamberlin, Old Point Comfort, Va., July 17-19, 1950. Harry K. Royer, 1404 Main St., Lynchburg, Va., secretary.

Ontario Veterinary Association. Summer meeting. Ontario Veterinary College, Guelph, Ont., July 19-21, 1950. A. L. MacNabb, Ontario Veterinary College, Guelph, principal.

New York, Western Veterinary Medical Association. Semiannual meeting. Chautauqua Lake assembly grounds, Chautauqua Lake, N. Y., July 25, 1950. F. F. Fehr, 243 S. Elmwood Ave., Buffalo, N. Y., secretary.

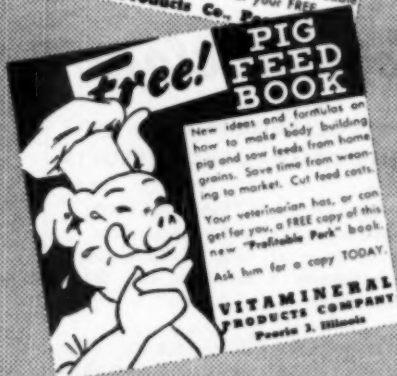
Conference for Public Health Veterinarians. Communicable Disease Center, United States Public Health Service, Atlanta, Ga., Aug. 12-18, 1950. J. H. Steele, U. S. Public Health Service, 605 Volunteer Bldg., Atlanta 3, Ga.

American Veterinary Medical Association. Annual meeting. The Municipal Auditorium, Miami Beach, Fla., Aug. 21-24, 1950. J. G. Hardenbergh, American Veterinary Medical Association, 600 S. Michigan Ave., Chicago 5, Ill., executive secretary.

Tennessee Short Course for Veterinarians. University of Tennessee, Knoxville, Tenn., Sept. 7-8, 1950. Dennis Coughlin, 1713 Yale Ave., Knoxville 16, Tenn., resident secretary.

Canadian Veterinary Medical Association. An-

(Continued on p. 26)



Three Million ads a month say

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(WATCH YOUR ENGLISH — continued from p. 24)

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eul de sac
de rigueur
ex officio
finis
in vitro
in vivo
litterati
mêlée
milieu
née
nil
nom de plume
par excellence
per contra
per os
per se

corrigendum
criterion
data
débris
en route
erratum
habeas corpus
onus
per capita
postmortem
postpartum
pro rata
protégé
régime
résumé
ultimatum
vice versa

This manifestly incomplete list of non-English terms currently used and italicized, according to editorial choice, is given as a simple lesson on the disparity in the use of italics within the scope of good usage. As stated in the preceding installment, the use of italics in most respects is largely a matter of choice.

(COMING MEETINGS — continued from p. 24)

nual meeting. Windsor Hotel, Montreal, P.Q., Sept. 7-9, 1950. Orlan Hall, 215 Third Ave., Ottawa, Ont., Secretary.

Missouri, Southeast Veterinary Medical Association. Fall meeting. Dr. J. V. Moore's Hospital, Hayti, Mo., Sept. 20, 1950. F. A. Stepp, 405 West North St., Sikeston, Mo., secretary.

New Mexico Veterinary Medical Association. Annual meeting. Hilton Hotel, Albuquerque, N. Mex., Oct. 2-3, 1950. O. J. Rollag, 1825 Campus Boulevard, Albuquerque, N. Mex.

Pennsylvania State Veterinary Medical Association. Annual meeting. Galen Hall, Wernersville, Pa., Oct. 4-6, 1950. Raymond C. Snyder, N.W. Corner Walnut St. and Copley Rd., Upper Darby, Pa., secretary.

Purdue University, thirty-eighth annual short course for veterinarians, Oct. 4-6, 1950. L. M. Hutchings, Purdue University School of Agriculture, Lafayette, Ind., chairman.

New England Veterinary Medical Association. Annual meeting. Mohican Hotel, New London, Conn., Oct. 10-11, 1950. C. Lawrence Blakely, 180 Longwood Ave., Boston, Mass., secretary.

Iowa, Eastern Veterinary Medical Association. Annual meeting. Hotel Montrose, Cedar Rapids,

(Continued on p. 28)

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Look how these dinners compare!

		LAMB CHOP DINNER	PARD (1 CAN)
Protein	(grams)	26.4	52.8
Carbohydrate	(grams)	42.5	45.7
Fat	(grams)	54.2	14.7
Iron	(mgs.)	5.2	22.7
Calcium	(grams)	0.05	2.0
Phosphorus	(grams)	0.38	1.59
Vitamin A	(units)	499.0	550.0
Thiamine	(mgs.)	0.58	1.41
Riboflavin	(mgs.)	0.43	1.86
Niacin	(mgs.)	8.71	18.2

Energy: { Lamb chop dinner: 25.4% of daily caloric needs for average man
Pard (1 can): 100% of daily caloric needs for 20-lb. dog



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Member Associated Serum Producers, Inc.

(COMING MEETINGS — continued from p. 26)

- Iowa, Oct. 19-20, 1950. N. R. Waggoner, Olin, Iowa, secretary.
- Minnesota, Conference for Veterinarians. Annual conference. University of Minnesota, School of Veterinary Medicine, St. Paul 1, Minn., Oct. 25-26, 1950. W. L. Boyd, 2227 Hillside Ave., St. Paul 8, Minn., chairman.
- Mississippi Valley Veterinary Medical Association. Fall meeting. Pere Marquette Hotel, Peoria, Ill., Nov. 1-2, 1950. R. J. Kirkpatrick, 1235 N. Henderson St., Galesburg, Ill., secretary.
- United States Livestock Sanitary Association. Annual meeting. Westward-Ho Hotel, Phoenix, Ariz., Nov. 1-3, 1950. Dr. R. A. Hendershott, 1 West State St., Trenton, N.J., secretary.
- Cornell Nutrition Conference for Feed Manufacturers. Statler Hotel, Buffalo, N. Y., Nov. 2-3, 1950. F. W. Hill, Poultry Department, Cornell University, Ithaca, N. Y., chairman.
- Southern Veterinary Medical Association. Annual meeting. Baker Hotel, Dallas, Texas, Nov. 6-8, 1950. A. A. Husman, 320 Agricultural Bldg., Raleigh, N. Car., secretary.
- Third Inter-American Congress on Brucellosis, The. Washington, D.C., Nov. 6-10, 1950. Wesley W. Spink, University of Minnesota Medical School, chairman.
- Oklahoma Veterinary Medical Association. Annual meeting. Skirvin Hotel, Oklahoma City, Okla., Jan. 8-9, 1951. Lewis H. Moe, 1736 W. 3rd Ave., Stillwater, Okla., secretary.
- Indiana Veterinary Medical Association. Annual meeting. Hotel Severin, Indianapolis, Ind., Jan. 10-12, 1951. W. W. Garverick, Zionsville, Ind., secretary.
- Iowa Veterinary Medical Association. Annual meeting. Hotel Fort Des Moines, Des Moines, Iowa, Jan. 17-19, 1951. F. B. Young, P.O. Box 6, Waukec, Iowa, secretary.
- Illinois State Veterinary Medical Association. Annual meeting. Hotel Sherman, Chicago, Ill., Jan. 24-26, 1951. A. G. Misener, 6448 North Clark St., Chicago 26, Ill., secretary.

(Continued on p. 30)

WHITE'S

ANIMAL CASTRATION

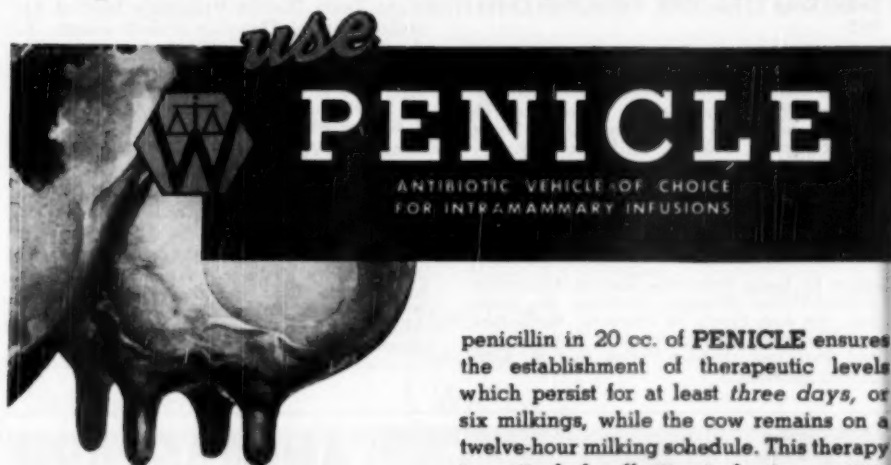
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Veterinary Division

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Regularly Scheduled Meetings

Bay Counties Veterinary Medical Association, the second Tuesday of each month. Russell P. Cope, 1205 San Pablo Ave., Berkeley 6, Calif., secretary.

Central California Veterinary Medical Association, the fourth Tuesday of each month. Thomas Eville, Route 1, Box 136H, Fresno, Calif., secretary.

Chicago Veterinary Medical Association, the second Tuesday of each month. Robert C. Glover, 1021 Davis St., Evanston, Ill., secretary.

East Bay Veterinary Medical Association, bi-monthly, the fourth Wednesday. O. A. Soave, 5666 Telegraph, Oakland, Calif., secretary.

Fayette County Veterinary Association, Iowa, the third Tuesday of each month, except in July and August, at Pa and Ma's Restaurant, West Union, Iowa. Donald E. Moore, Box 178, Decorah, Iowa, secretary.

Greater St. Louis Veterinary Medical Association. Ralston-Purina Research Building, St. Louis, Mo., the first Friday in February, April, June, and November. W. C. Schofield, Dept. of Animal Pathology, Ralston-Purina Co., St. Louis 2, Mo., secretary.

Houston Veterinary Medical Association, Houston, Texas, the first Thursday of each month. Edward Lapon, Houston, Texas, secretary-treasurer.

Illinois Valley Veterinary Medical Association, the second Wednesday of even-numbered months. R. A. Case, 400 S. Garden St., Peoria, Ill., secretary.

Indiana Tenth District Veterinary Medical Association, third Thursday of each month. L. A. Snider, New Palestine, Ind., secretary.

Jefferson County Veterinary Society, Louisville, Ky., the first Wednesday evening of each month. F. M. Kearns, 3622 Frankfort Ave., Louisville 7, Ky., secretary.

Kansas City Veterinary Medical Association, the third Tuesday of each month, in the Hotel Continental, 11th and Baltimore, Kansas City, Mo. K. M. Curtis, 70 Central Ave., Kansas City 18, Kan., secretary.

Keystone Veterinary Medical Association. School of Veterinary Medicine, University of Pennsylvania, Philadelphia, Pa., the fourth Wednesday of each month. Raymond C. Snyder, N. W. Cor. Walnut St. and Copley Rd., Upper Darby, Pa., secretary.

(Continued on p. 36)

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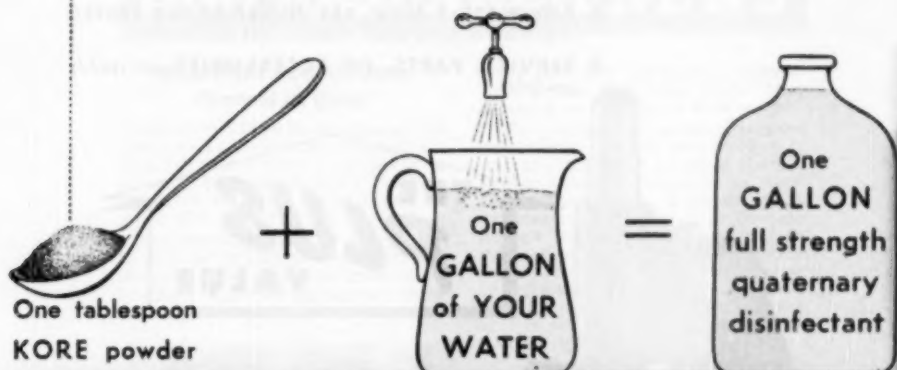
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If you have never used KORE, order it on a 30 day trial from any of the dealers listed below. KORE is available in 11 pound tins @ \$6.50; 25 pound drums @ \$13.50; 50 pound drums @ \$23.50; and 100 pound drums @ \$50.00.

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Allen Surgical Corp.
Brooklyn 5, New York

Barber Veterinary Supply Co.
Richmond 7, Va.

A. J. Buck & Son
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H. C. Burns Co., Inc.
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California Veterinary Supply Co.
Hollywood 28, Calif.

Detroit Veterinary Supply Co.
Detroit 32, Mich.

Diamond Medical Supply Co.
Portland 5, Oregon

Earl Adams
Greensboro, North Carolina

Edwards Veterinary Supply Co.
Kansas City 8, Mo.; St. Louis 7, Mo.

C. H. Goldthwaite Co.
Boston 16, Mass.

Hunter Pharmacal Co.
Columbus 8, Ohio

South Hills Veterinary Supply
Pittsburgh 27, Penna.

Merritt Veterinary Supplies
Sumter, South Carolina

Miller Veterinary Supply Co.
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Nelson Laboratories
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Northland Veterinary Supply Co.
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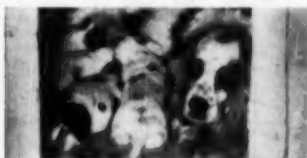
No. 1

DOG RESEARCH NEWS

Intestinal Roundworm Control in Dogs

Recently acquired knowledge on the control and elimination of intestinal roundworms in dogs is contained in a recent bulletin issued by Friskies Research Kennels. Write today, if you'd like a copy.

Meanwhile, remember it is easier to prevent intestinal roundworm in the first place. Here are three steps to follow in protecting puppies from infestation:



1. Clip the belly of the bitch ten days prior to whelping.
2. Then thoroughly wash her.
3. Confine her, and her pups, in a clean environment until puppies are weaned.

Debilitated puppies, suffering from malnutrition, are most susceptible to ascarid infestation. Experiments with chickens at the University of Ohio showed that a low vitamin A or vitamin D intake increases the susceptibility of chicks to ascarids. These experiments also showed that pullets at 3 months were relatively resistant, and at 6 months were


quite generally resistant to infestation, unless debilitated from other diseases or nutritional deficiency.

The younger the puppy, the more susceptible he is to roundworm. It appears that there is also a distinct age resistance to ascarids in dogs. Consequently, one can assume from experience that once dogs become mature they are quite resistant to infestation—but may become fairly susceptible if debilitated by disease or nutritional deficiency. So feed Friskies for complete nutrition—the kind of nourishment that builds resistance to disease!



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During the past 17 years of continuous research, Friskies experts have undoubtedly encountered almost every problem of dog breeding, feeding and care. If you have a special problem, they will be glad to give you the benefit of their experience. Just write to the Friskies Research Kennels, Carnation, Washington.



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5 Sizes:
50, 25, 10, 5, 2 lbs.

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A FRISKY DOG IS A HEALTHY DOG

Miami Beach Street Diagram, Showing Hotels Selected for AVMA Meeting and Their Proximity to Municipal Auditorium

NOTE: The section shown on this diagram lies in the middle eastern part of Miami Beach and represents only a small portion of the city's total area.



- | | | | |
|---------------------|------------------|------------------|----------------|
| 1. Albion | 6. Gale | 11-B. Promenade* | 17. Shelby |
| 1-A. Bancroft | 7. Georgian | 12. Raleigh | 18. Shore Club |
| 1-B. Berkeley Shore | 8. Greenview | 13. Ritz Plaza | 19. South Seas |
| 2. Crest | 9. Marseilles | 13-A. Royal Palm | 20. Surfcomber |
| 3. Delano | 10. Maxine | 14. Sagamore | 21. St. Moritz |
| 4. Dorchester | 11. National | 15. Sands | |
| 5. Dorset | 11-A. New Yorker | 16. San Juan | |

*Located at 2475 Collins—approximately four blocks north of area shown on this diagram.

NOTE: Hotel Nos. 1-A, 1-B, 11-A, 11-B, 13-A, and 21 are new additions to the list first published in the MAY JOURNAL.

HOTEL RESERVATIONS — MIAMI BEACH SESSION

Eighty-Seventh Annual Meeting, AVMA, August 21-24, 1950

Selected Miami Beach hotels listed below are all near the Municipal Auditorium, where convention activities will be centered. Fill out the reservation form and mail it with \$10.00 deposit for each room directly to hotel of your first choice, indicating second and third choices also. Make check or money order payable to hotel of first choice. Deposit will be refunded if reservation is cancelled by Aug. 15. If hotel of first choice is filled, it will forward request to another hotel you have indicated. Confirmation will come from hotel which accepts reservation. Since this is an auditorium convention, there will be no headquarters hotel.

HOTELS AND RATES* —SEE LOCATIONS ON OPPOSITE PAGE

(A.C., Air-Conditioned; O.F., Oceanfront; S.P., Private Swimming Pool)

Hotel and Address	Single	Double (with Twin Beds)
1. Albion (S.P.), 1650 James Ave.	\$4.00	\$6.00
1-A. Bancroft (O.F.), 1501 Collins	4.00	5.00
1-B. Berkeley Shore, 1610 Collins	4.00	4.00
2. Crest, 1670 James Ave.	4.00	5.00
3. Delano (A.C., O.F., S.P.), 1685 Collins	6.00	8.00-12.00
4. Dorchester (S.P.), 1850 Collins	3.00	5.00
5. Dorset, 1730 Collins	3.00	4.00
6. Gable, 1690 Collins	3.00	4.00
7. Georgian (O.F., S.P.), 1621 Collins	4.00	6.00
8. Greenview, 1671 Washington Ave.	2.00	3.00
9. Marseilles (A.C., O.F., S.P.), 1741 Collins	6.00	8.00
10. Maximo, 1756 Collins	3.00	5.00
11. National (O.F., S.P.), 1667 Collins	6.00	8.00
11-A. New Yorker (O.F.), 1611 Collins	3.00	5.00
11-B. Promenade (A.C., O.F., S.P.), 2473 Collins	8.00	8.00
12. Raleigh (A.C., O.F., S.P.), 1777 Collins	8.00	8.00
13. Ritz Plaza (O.F., S.P.), 1701 Collins	7.00	8.00
13-A. Royal Palm (O.F., S.P.), 1545 Collins	6.00	8.00
14. Sagamore (A.C., O.F., S.P.), 1671 Collins	7.00	8.00
15. Sands (O.F., S.P.), 1601 Collins	7.00	8.00
16. San Juan (A.C., S.P.), 1680 Collins	3.00	4.50
17. Shelby (A.C.), 1826 Collins	7.00	8.00
18. Shore Club (A.C., O.F., S.P.), 1901 Collins	5.00	6.00
19. South Seas (A.C., O.F., S.P.), 1751 Collins	7.00	8.00
20. Surfcomber (A.C., O.F., S.P.), 1717 Collins	7.00	8.00
21. St. Moritz (O.F., S.P.), 1565 Collins	3.00	4.00

*Information about availability and rates of suites may be obtained on request to hotels of your choice. See reservation form below.

Cut Off Here

HOTEL RESERVATION FORM — AVMA CONVENTION

To: (Name of Hotel) _____ Date _____

Street Address _____
Miami Beach, Fla.

Please make reservations noted below:

(Three choices MUST be shown.)

Accommodations and Rates Desired:

First choice hotel _____ ☐ Single Room at \$ _____ per day
Second choice hotel _____ ☐ Double Room at \$ _____ per day
Third choice hotel _____ ☐ Send me information on availability and rates of suites

Arriving on (date) _____ at _____ a.m. _____ p.m.

Leaving on (date) _____ at _____ a.m. _____ p.m.

Room will be occupied by:

Name _____ City and State _____

Name _____ City and State _____

My check for \$ _____ is enclosed to bind this reservation. (\$10.00 deposit, payable to hotel of first choice, must be sent for each room requested.)

Your Name (print or type) _____

Street Address _____

City _____ Zone _____ State _____

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¼ Dozen and One FREE....	5.00
½ Dozen and Two FREE....	9.00
1 Dozen and Four FREE....	17.00
2 Dozen and Four FREE....	28.00

Packaged Medicines for Veterinarians



Back in 1896 we began our unique service of supplying the Veterinarian with a line of effective Pharmaceutical Products labeled with his name and address, ready to be dispensed at his office or carried on professional calls. This valuable Carter-Luff service provides the busy practitioner with additional income yet, at the same time, provides many hours of needed relaxation during his weekly routine.

Write for Descriptive Price Sheet of
a Hundred Dispensing Products

CARTER-LUFF CHEMICAL CO.
Hudson, N. Y.

(COMING MEETINGS -- continued from p. 30)

Massachusetts Veterinary Association. Hotel Statler, Boston, Mass., the fourth Wednesday of each month. C. L. Blakely, Angell Memorial Animal Hospital, 180 Longwood Ave., Boston, Mass., secretary-treasurer.

Michiana Veterinary Medical Association. Hotel Elkhart, Elkhart, Ind., 7:00 p.m., the second Thursday of each month. R. W. Worley, 3224 Lincoln Way West, South Bend, Ind., secretary.

Michigan, Southeastern Veterinary Medical Society. Herman Kiefer Hospital, Detroit, Mich., the second Wednesday of each month from October through May.

Milwaukee Veterinary Medical Association. Wisconsin Humane Society, 4150 N. Humbolt Ave., Milwaukee, Wis., the third Tuesday of each month. Kenneth G. Nicholson, 2161 N. Farwell Ave., Milwaukee, Wis., secretary.

Monterey Bay Area Veterinary Medical Association, the third Wednesday of each month. C. Edward Taylor, 2146 South Broad St., San Luis Obispo, Calif., secretary.

New York City Veterinary Medical Association. Hotel Statler, New York, N. Y., the first Wednesday of each month. C. R. Schroeder, Lederle Laboratories, Inc., Pearl River, N. Y., secretary.

Northern San Joaquin Valley Veterinary Medical Association, the fourth Wednesday of each month. I. N. Bohlender, Box 588, Turlock, Calif., secretary.

Orange Belt Veterinary Medical Association, the second Monday of each month. James R. Ketchersid, 666 East Highland Avenue, San Bernardino, Calif., secretary.

Orange County Veterinary Medical Association, bimonthly, the second Tuesday of each month. J. H. Bower, P. O. Box 355, Santa Ana, Calif., secretary.

Peninsula Veterinary Medical Association, the third Monday of each month. E. W. Paul, Box 866, Redwood City, Calif., secretary.

Redwood Empire Veterinary Medical Association, the second Tuesday of every other month. Charles D. Stafford, Novato, Calif., secretary.

Sacramento Valley Veterinary Medical Association, the fourth Friday of each month. R. C. Goulding, 11511 Capitol Avenue, Sacramento, Calif., secretary.

San Diego County Veterinary Medical Association, the fourth Tuesday of each month. R. J. McFarland, 3621 Jewell St., San Diego 9, Calif., secretary.

Southern California Veterinary Medical Association, the third Wednesday of each month. D. H. McDole, 8674 Melrose Ave., Los Angeles 46, secretary.

South Florida Veterinary Society, the third Tuesday of each month, 8:00 p.m., at the Peckway Skeet Club, Robert P. Knowles, 2936 N.W. 17th Ave., Miami, Fla., secretary.

Tulsa Veterinary Medical Association, the third Thursday of each month, 8:00 p.m., at the Tulsa Hotel. R. S. Todd, 1222 S. Lewis, Tulsa, Okla., secretary.

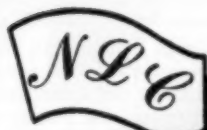
(Continued on p. 38)

WHAT'S IN A NAME?



Every Veterinarian knows that to hold to a busy schedule of calls, and daily routine in **F**reeing the nation's herds and flocks from the ravages of disease . he essentially needs **F**irst, serums, other pharmaceuticals properly compounded, second, he needs them **I**n a minute's time. That's why the National Laboratories' name means so mu**C**h to leading veterinarians. NLC maintains strategic branch offices in the greater **I**vestock areas. If emergency strikes, as it often does in a veterinarian's practice, he can **R**ely on emergency service. NLC delivers pharmaceuticals, biologicals - receives specime**N**s for clinical analysis by air in a matter of hours. That's why Veterinarians rely on effi**C**ency of the National Laboratories Corporation . . to supply purest products prompt**Y**.

Look for the N.L.C. trademark on pharmaceuticals and biologicals. It is your guarantee of efficiency in service.



SERVING GRADUATE VETERINARIANS EXCLUSIVELY

**THE
NATIONAL LABORATORIES
CORPORATION
KANSAS CITY**

SYMBOL OF



QUALITY

PHENOTHIAZINE**REGULAR N. F. or DRENCH TYPE**

1 lb. can (12 to case)	70c per lb.
5 lb. can (5 to case)	67c per lb.
10 lb. drum	66c per lb.
25 lb. drum	64c per lb.
150 lb. drum	57c per lb.

PEST CONTROL**BENZENE HEXACHLORIDE****10% gamma isomer wettable**

6 lb. bag	45c per lb.
8-6 lb. bags	37c per lb.
100 lb. drum	36c per lb.

CHLORDANE 40% WETTABLE

4 lb. bag	70c per lb.
12-4 lb. bags	62c per lb.
100 lb. drum	57c per lb.

LINDANE 25% WETTABLE

99% gamma isomer BHC

1 lb. can (12 per case)	\$3.60 per lb.
4 lb. can (4 per case)	3.55 per lb.

METHOXYCHLOR 50% WETTABLE

"MARLATE" 50 (DuPont)

4 lb. bag	78c per lb.
12-4 lb. bags	70c per lb.
24-4 lb. bags	68c per lb.

DDT 50% WETTABLE

1 lb. can (12 per case)	49c per lb.
10 lb. drum	43c per lb.
25 lb. drum	40c per lb.
100 lb. drum	36c per lb.

TALC USP

10 lb. drum	17c per lb.
25 lb. drum	14c per lb.

SULFONAMIDES**SULFANILAMIDE POWDER U.S.P.**

1 lb. bottle	\$1.55 per lb.
10 lb. drum	1.50 per lb.
25 lb. drum	1.40 per lb.
100 lb. drum	1.30 per lb.

SULFATHIAZOLE SODIUM POWDER U.S.P.

1 lb. bottle	\$4.45 per lb.
5 lb. bottle	4.40 per lb.

SULFAPYRIDINE SODIUM POWDER

1 lb. bottle	\$10.00 per lb.
5 lb. bottle	9.75 per lb.

Write for Complete Price List

Terms 1% 10 days, net 30 days, F.O.B. Chicago

Freight Allowed on Shipments of 100 Lbs. or More

Prices Subject to Change Without Notice

AMERICAN CHEMICAL CO.

Fine Chemicals for the Veterinary Profession

1118 West 37th Street, Chicago 9, Illinois

(COMING MEETINGS — continued from p. 36)

Foreign Meetings

First Pan-American Veterinary Conference, Lima, Peru, May 20-26 (tentative), 1951. José Santibañez, dean, Veterinary College, San Marcos University, Lima, Peru.

Abiding Faith in Individual Enterprise.

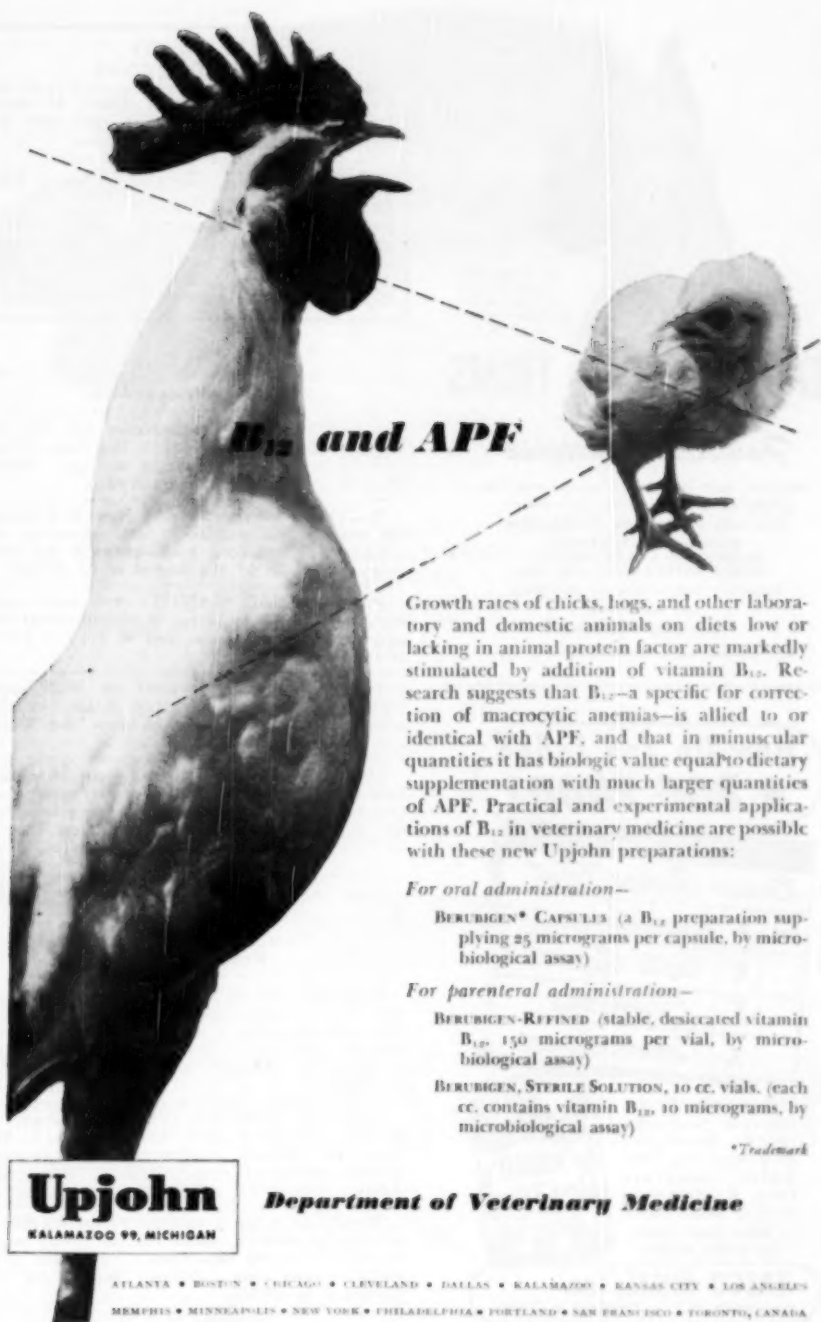
"A hundred years from now," says Kansas Stockman, "the United States will be able to support 300 million people on a scale eight times better than we live today." To this the veterinarian, observing the farmer at work, would add, "provided said enterprise keeps vital elements of cultivated soil from wending its way to the bottom of the seven seas. Yesterday's farm land is tomorrow's desert. A short time ago the people of the Near East, Egypt, and North Africa also wrote of 'living eight times better than today.'"

Sales of Veterinary Medicines Aided by Fourteen Companies

American Druggist (April, 1950) advises pharmacy owners that the following companies will supply them with promotional material to stimulate sales of veterinary medical products and so-called animal health goods:

American Scientific Laboratories, Madison, Wis.
Bickmore, Old Town, Maine
William Cooper & Nephews, Chicago, Ill.
Cutter Laboratories, Berkeley, Calif.
Globe Laboratories, Fort Worth, Texas
Dr. Hess & Clark, Ashland, Ohio
J. Hilgers, Binghamton, N. J.
Lederle Laboratories Division, American Cyanamid Co., New York, N. Y.
Geo. H. Lee, Omaha, Neb.
H. W. Naylor, Morris, N. Y.
Pay-U Laboratories, Quincy, Ill.
Polk Miller Products, Richmond, Va.
Dr. Salsbury's Laboratories, Charles City, Iowa
Vineland Poultry Laboratories, Vineland, N. J.

Although the list does not include all companies lending vigorous aid to drug-store sales of veterinary medicines, the *American Druggist* points out that "no manufacturer is omitted who sent us the information before going to press." Among the promotional materials offered by the companies named are newspaper mats, folders and booklets, counter displays, complete window displays, and store pennants.



B₁₂ and APF

Growth rates of chicks, hogs, and other laboratory and domestic animals on diets low or lacking in animal protein factor are markedly stimulated by addition of vitamin B₁₂. Research suggests that B₁₂—a specific for correction of macrocytic anemias—is allied to or identical with APF, and that in minuscule quantities it has biologic value equal to dietary supplementation with much larger quantities of APF. Practical and experimental applications of B₁₂ in veterinary medicine are possible with these new Upjohn preparations:

For oral administration—

BERUBIGEN® CAPSULES (a B₁₂ preparation supplying 25 micrograms per capsule, by microbiological assay)

For parenteral administration—

BERUBIGEN-REFINED (stable, desiccated vitamin B₁₂, 150 micrograms per vial, by microbiological assay)

BERUBIGEN, STERILE SOLUTION, 10 cc. vials. (each cc. contains vitamin B₁₂, 10 micrograms, by microbiological assay)

®Trademark

Upjohn

KALAMAZOO 99, MICHIGAN

Department of Veterinary Medicine

ATLANTA • BOSTON • CHICAGO • CLEVELAND • DALLAS • KALAMAZOO • KANSAS CITY • LOS ANGELES
MEMPHIS • MINNEAPOLIS • NEW YORK • PHILADELPHIA • PORTLAND • SAN FRANCISCO • TORONTO, CANADA



Ch. Koronole's
Prima Donna
trimmed with
Faultless Patterns.

BEAUTIFUL EAR TRIMS

EVERY TIME WITH

Faultless Patterns

Precision built instruments guaranteed for suitability in design and performance.
Sold only to graduate Veterinarians

BOXER CLAMP, \$19.50
DOBERMAN CLAMP, \$20.50
GREAT DANE CLAMP, \$21.50

Including instructions for trimming and after care

FAULTLESS PATTERNS

931 Garden Lane, South Bend 21, Ind.

How Do You Judge A DOG FOOD?

Score Card

<i>Kasco Scores First</i>	
in X	<i>Nourishment</i>
X	<i>Taste Appeal</i>
X	<i>Economy</i>
X	<i>Convenience</i>

If those are the advantages you want in the food you give your dog, feed Kasco Complete Dog Ration—in meal or pellet form.

Write Dept. JV-7
for a FREE SAMPLE



KASCO MILLS, Inc.

WAVERLY, N.Y. or TOLEDO 4, OHIO

CLASSIFIED ADVERTISEMENTS

Twenty-five words or less, \$2.50; 8 cents for each additional word. Replies sent in care of the Journal, 25 cents extra.

Remittance must accompany order.

Deadline for want ads 12th of month preceding date of issue.

Names of classified advertisers using key letters cannot be supplied. Address your reply to the key letters, c/o JOURNAL of the AVMA, 600 So. Michigan Ave., Chicago 5, Ill., and it will be transmitted to the advertiser.

Wanted—Veterinarians

WANTED—graduate veterinarian for July and August. Small animal hospital on East Coast. Private room; light duties. State salary and age. Address "Box W 4," c/o Journal of the AVMA.

WANTED—veterinarian with New York license, for small animal hospital. State experience, age, marital status, and other qualifications in first letter. Address "Box W 2," c/o Journal of the AVMA.

VETERINARIAN WANTED—with large animal background, to act as adviser to pharmaceutical company; fee basis. Address "Box W 9," c/o Journal of the AVMA.

Veterinarian (single) wanted for small animal hospital in Chicago. Give full details, including salary expected, in first letter. Address "Box W 10," c/o Journal of the AVMA.

Capable veterinarian wanted to assist in southern California small animal practice. Salary open to able man willing to stay on the job. State qualifications and salary expectations in reply. Address "Box W 13," c/o Journal of the AVMA.

VETERINARIAN WANTED—for large animal practice. Salary or partnership. Address "Box W 19," c/o Journal of the AVMA.

Wanted—Practices

WANTED TO BUY—an established small animal hospital doing enough business to require at least 2 veterinarians to handle. Prefer a warm climate or resort area. Please send details and photo in first letter. Address "Box U 3," c/o Journal of the AVMA.

WANTED PRACTICE—Veterinarian desires to purchase established small animal practice in New Jersey, Pennsylvania, or other neighboring locations. \$15,000 offered as down payment. Give details. Address "Box W 12," c/o Journal of the AVMA.

Would like to buy or trade for a good Washington or Oregon practice. Have one of Iowa's largest practices in county seat town. Paved and gravel roads to every farm. Address "Box W 16," c/o Journal of the AVMA.

(Continued on p. 42)

*In cases of
Neuromuscular paralysis
in small animals...*



... and how many animals with neuromuscular paralysis, especially in the posterior region of the spine, have you had to destroy? If your experience with these cases parallels that of other veterinary physicians, you'll be interested — and vitally so — in Physotropin.

Physotropin is an alkaloid and a cholinesterase inhibitor. It has been used successfully in numerous cases of paralysis, usually following injuries, and relieves pain due to muscle spasm.

It has been used in both forms, the injectible and tablet, with success. Our files contain case reports attesting to that fact.

Try it in the next case of neuromuscular paralysis. Order through your wholesaler or direct.

**Where trauma,
particularly following injuries,
results in neuromuscular paralysis...
try**

Tablet containing:

Physostigmine
Atropine
Salicylate — 0.5 mg
(1/120 gr.)
Sulfate — 0.15 mg
(1/400 gr.)

**Sterile, isotonic solution
containing:**

Physostigmine
Salicylate — 1.0 mg
per cc.
Atropine
Sulfate — 0.6 mg
per cc.

PHYSOTROPIN

SUPPLIED: 1 cc. amp., 50 cc. Bx. 9. Top Style.
Physotropin Tablets: 100's, 500's, and 1000's.

Write for samples and literature.

S. F. DURST & CO., INC., 5317-21 N. 3rd ST., PHILA. 20, PA.

"Water-Proof"

5 COMPARTMENT STALLS \$159.00



**WATER-PROOF CONSTRUCTION
HEAVILY GALVANIZED SHEET
NO EXTRA CHARGE!**

Bottoms are water-proof trays with $\frac{1}{4}$ " turned up edges, heavily soldered together. Braced, aluminum painted, $\frac{1}{4}$ " angle iron frames. Door frames 1" O. D. pipe. Dog proof mesh filler welded to frame. All sheets heavily galvanized.

Completely Assembled. Satisfaction Guaranteed.
SIZES: 3 upper stalls 24" x 24" x 28" deep.
2 lower stalls 36" x 36" x 28" deep.
Overall size: 8' wide x 5'8" high x 28 1/2" deep.
Stalls Stand 6 in. off floor.



KENNEL RUNS

The low cost will surprise you!
Ford DOUBLE FRAME Panel Runs insure SAFETY for your dogs. Chain link fabric is rust resistant, cannot be spread; permanently locked by INNER BAR FRAME. NO TIE WIRES TO RUST. Clamp together. No bolt holes to match. Portable or permanent construction.

Made in sizes to fit your requirements.
4, 5, and 6 ft. heights. Lengths 2 to 14 ft. panels.

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Kennel Runs — Pup Pens — Stalls and Cages
Ornamental and Miscellaneous Iron.

FORD FENCE CO.

6572 Winthrop Avenue
INDIANAPOLIS 20, INDIANA

(CLASSIFIED ADS — continued from p. 40)

Wanted—Positions

Veterinarian from Europe, 32, married, six years' experience, wishes to work as assistant in mixed practice. First citizenship papers taken out. Prefer mideastern states. Address Dr. Casimir Krivickas, 9154 114th St., Richmond Hill, N. Y.

Dr. J. Motiejunas, 34, graduated in Tortu (Estonia), 1923, doctorate work in Bern (Switzerland), 1928; former D.P., previous professor of obstetrics, sterility, and cattle diseases at veterinary academy in Kaunas (Lithuania), wishes position as assistant in large animal practice, laboratory, or in college. Speaks sufficient English, fluent Lithuanian, Russian, and German. Address 2621 Mishawaka Ave., South Bend 15, Ind.

WANTED—permanent association with small animal or mixed practice. Graduate of AVMA-approved school, with seven years' experience in mixed and small animal practice. Address "Box W 6," c/o Journal of the AVMA.

Latvian veterinarian, university graduate 1942, age 38, married, desires position as assistant in any veterinary line. Seven years' experience (Latvia and Germany). Speaks and understands English fairly well; speaks German. Address Dr. John Skroms, R. 1, Rossburg, Ohio.

Graduate veterinarian with eight years' experience, now attending medical school, desires summer jobs. Address "Box V 9," c/o Journal of the AVMA.

Veterinarian, graduate of veterinary faculty at Riga University (Latvia), degree of doctor of veterinary medicine at Hannover Veterinary College (Germany), ten years' experience in Latvia and five years in Germany engaged in private practice with small and large animals, is desiring permanent employment as an assistant or anything in related field. Please state your conditions in making your offer. Address "Box W 14," c/o Journal of the AVMA.

Graduate, D.P. veterinarian, 33, married, experienced, especially in dairy, sterility, artificial breeding, etc. practice (five years in Germany, one year in United States), desires position as assistant. Address "Box W 17," c/o Journal of the AVMA.

For Sale or Lease—Practices

FOR SALE—old, established mixed practice, 25 miles from Chicago. Will sell for the value of my property, \$20,000. This includes drugs, instruments, etc.; business right in home. Must have at least \$7,500 cash and will carry the remainder as first mortgage. I am selling due to a heart ailment. Address "Box W 11," c/o Journal of the AVMA.

FOR SALE—Because of health, will sell mixed practice at sacrifice. Nice Illinois town. Excellent opportunity for young man who could increase income. Price \$1,500. Address "Box W 8," c/o Journal of the AVMA.

FOR SALE—ideal location for veterinarian next door to new, \$100,000 city animal shelter in heart of North Hollywood on main boulevard. Modern, 6-room home with 2-room guest house attached, to be converted into small animal hospital. Beautiful landscaped, shaded grounds, 115 ft. wide, 205 ft.

(Continued on p. 44)

NOW MASTICS® with STREPTOMYCIN

PENICILLIN-STREPTOMYCIN BOUGIES

FOR THE TREATMENT OF STUBBORN MASTITIS* CASES

The new MASTICS with Streptomycin contain 25,000 units of penicillin "G" plus 25 mg. of streptomycin—two time-proven drugs that cure most stubborn mastitis cases.

Inserted in the infected teat, they dissolve and medicate all parts of the teat lining, cistern and large ducts. They come individually sealed in a foil wrap which serves as an applicator.

Order either MASTICS with Streptomycin or the familiar Penicillin MASTICS from your distributor. If he cannot supply you, send your order to us. Delivery charges prepaid if check accompanies order, otherwise C.O.D. plus charges.

**MASTICS
ADVERTISING**
IN 15 DAIRY FARM PAPERS
**SENDS THE
HERDOWNER
TO YOU**



**Don't be limited to ONE drug
in the treatment of MASTITIS***

Get the new MASTICS® with Streptomycin and you get the following unusual advantages in the treatment of mastitis.

1. Broadest coverage—Mastics with Streptomycin combine the action of 25,000 units of penicillin "G" plus 25,000 mg. of streptomycin, two proven leaders that cure most stubborn mastitis cases.
2. More economical—No expensive tubes, cannula or caps to discard. The entire dose is inserted in one operation, none remains in tube.
3. Freely soluble—Mastics with Streptomycin completely dissolve in the milk; do not float on top like greases and ointments. No greasy deposit remains in the milk after treatment.
4. Excellent results—94.6% cures authoritatively reported.
5. Easier to insert—Tapering ends dilate the teat opening by easy stages. Smaller diameter and absence of rough edges make insertion painless.
6. No leakage—Mastics with Streptomycin are flexible, seldom break—never crumble.
7. Lowest cost—Materials used are well past the expensive developmental stage. Large available supplies mean low cost to you.

Get either MASTICS with Streptomycin or regular Penicillin MASTICS from your veterinarian—no one else is so well qualified to advise you in their use. If he cannot supply you, send us his name and address.

*caused by Strept. agalactiae, B. coli, Aerobacter aerogenes.

The Martin Laboratories
West Chester, Penna.

Regular MASTICS

25's.	\$ 4.00
100's.	\$15.00
500's.	\$65.00

High Potency MASTICS

25's.	\$ 7.50
100's.	\$28.00

MASTICS with Streptomycin

25's.	\$ 4.75
100's.	\$18.00

*caused by Strept. agalactiae, B. coli, Aerobacter aerogenes.

"Mastics" Reg. U.S. Pat. Off.

The Martin Laboratories
West Chester, Penna.

ALKADOTE

Bolus-Tablets



Toxopexic, demulcent, antacid, chemical reducing agent, to aid in neutralizing toxic substances, especially organic acids produced by fermentation of food stuffs in the alimentary tract, particularly in the rumen.

12	..... \$ .75	doz. 12's	..... 8.50
25	..... 1.25	4-25's	..... 4.80

CURTIS-FOLSE LABORATORIES

*Pharmaceutical Chemists to the
Veterinary Profession since 1918*

73 Central Avenue Kansas City, Kansas

"SUTURATOR"

*A New Instrument
for Surgical Stitching*

WOUNDS
INCISIONS
TEAT SURGERY

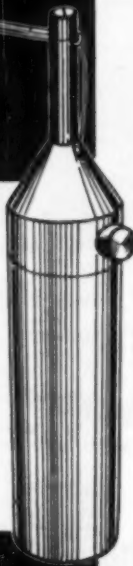
- Precision-built; new, improved design.
- For non-absorbable suture material: Cotton, silk, linen, nylon, stainless wire.
- Fits the hand: shown here almost 2/3 actual size.
- Complete instrument with extra needles and bobbins, full instructions . . . \$22.50

Send Check or Money Order.

Sold to Veterinarians Only

R. E. BROWN

726 Clark St Lansing, Mich.



(CLASSIFIED ADS — continued from p. 42)

deep. Right zoning. Chance of a lifetime for veterinarian. \$22,500. Address San-Val Kennels, 13145 Sherman Way, North Hollywood, Calif.

FOR SALE—practice in Michigan. Sixty-five metal kennels, modern hospital, drugs, equipment, x-ray, ambulance, garage, outdoor runs, and two, 5-room apartments. Long term lease. Address "Box W 7," c/o Journal of the AVMA.

FOR SALE OR LEASE—hospital-residence, two years old, in lake-dairy region of southeastern Wisconsin. Nine acres wooded land on main highway. X-ray, glass block kennels, equipment. Owner leaving United States. Address "Box W 5," c/o Journal of the AVMA.

FOR SALE—small animal hospital in southern California community. No real estate involved. Presently grossing \$18,000 per year, and still growing. Modern and well equipped. Price \$9,000. Address "Box U 20," c/o Journal of the AVMA.

FOR SALE—established Kentucky general practice, priced reasonable, for cash. Very prosperous county seat town of about 4,000 population. Only veterinarian in three counties. Can be expanded as one desires. Address "Box U 2," c/o Journal of the AVMA.

FOR SALE—modern small animal hospital in Michigan, 11 rooms. \$15,000 down, gross over \$50,000. Will remain with buyer for reasonable time. Address "Box U 1," c/o Journal of the AVMA.

FOR SALE—mixed practice in western Washington. A well-established, growing practice with new hospital and comfortable, 6-room house. This is an excellent opportunity, and owner is selling only because of health. Address "Box W 1," c/o Journal of the AVMA.

FOR SALE OR LEASE—practice established forty years in metropolitan New Jersey. One of the country's outstanding hospitals. Brick building, 100-ft. frontage, with two modern apartments, 3 and 4 rooms. Owner retiring. \$15,000 cash required to handle deal. Do not reply unless you have the cash and the ability to run a large practice. Address "Box W 3," c/o Journal of the AVMA.

OPPORTUNITY OF A LIFETIME FOR A YOUNG VETERINARIAN—Due to death, an excellent thirty-five year established veterinary practice is available in West Omaha, Neb. Located in rich farm community, with regular practice from dairies and Omaha proper. Six-room modern, furnished house and garage, 100-ft. frontage on main thoroughfare, furnished and equipped office. Address Mrs. T. J. Dugdale, 2757 No. 49 St., Omaha, Neb., or phone Pleasant 1386.

FOR SALE—veterinary hospital in California, large, modern, on main boulevard. Living quarters, fully equipped, 95 kennels; grossed \$47,000 last year. Practice growing rapidly. \$56,000; \$17,500 down. Address "Box W 18," c/o Journal of the AVMA.

FOR SALE—completely equipped small animal hospital in Chicago. Full line of instruments, equipment, drugs, etc. Long term lease on property. Outside business interests reason for sale. Price is

(Continued on p. 46)

AMAZING VALUE

NEW, Non-Hydraulic Veterinarian Examination Table



NOW AVAILABLE FOR IMMEDIATE DELIVERY
ORDER FROM YOUR SUPPLY HOUSE

\$149⁵⁰

**CONVENIENT — LOW-COST —
CAN BE USED FOR OPERATIONS, TOO!**

Again — Professional leads with the introduction of this big value, high-efficiency table that has many special features normally found only in de luxe equipment. Costly hydraulic mechanisms have been eliminated and the table top is at the most convenient working level, 37" from the floor.

Another desirable feature is the tilting mechanism that permits the top to be tilted up to 65 degrees at the foot end. This is a definite advantage toward better drainage and helps keep the working surface clean and sanitary.

The table top is equipped with all necessary accessories, including chrome-plated tie rods, polished aluminum adjustable ties and spring-steel rods. The operating surface is smooth and entirely free of sharp or rough edges.

- Massive 20" circular base, heavily weighted, insures stability under all conditions.
- Base finished in lustrous, sanitary, black porcelain enamel that is easily kept clean.
- Gleaming white porcelain top is supported by 5" diameter triple-plated chromium column.
- Full size, 61 x 22", acid-resisting porcelain enamel top.



PROFESSIONAL HYDRAULIC TABLE

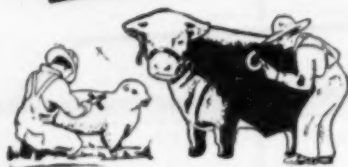
One of the finest hydraulic tables ever offered — with the new, improved foot-pedal hydraulic mechanism. Leaves the hands free at all time for surgery. Top swivels and tilts to any desired position. Write your jobber or ask us for complete information.



Professional **MANUFACTURING COMPANY**
MANUFACTURERS OF SPECIALIZED PROFESSIONAL EQUIPMENT

333 So. Peoria St., Chicago 7, Ill.

ALL-WEATHER PAINT-Stik



BRANDING PAINT IN STICK FORM

- Easy to use. "Handy as a pencil."
- Fadeproof. Weatherproof.
- Marks Wet or Dry pelts.
- Non-toxic; non-injurious.
- Enduring. Lasts until the hair grows out.
- Completely removed in the scouring process.
- Protective Holder. Allows maximum use of stick.

USE IT ON ALL ANIMALS when making tests, inoculating, vaccinating, etc. Six colors. At your Supply House, or send 25c coin for sample stick.

LAKE CHEMICAL COMPANY

3034 W. Carroll Avenue, Chicago 12, Illinois



For DOG and CAT Hospitals

For Zephyr-fresh air and germicidal cleanliness—

USE D-3, the clear, odorless liquid concentrate; deodorize and disinfect animal cages, kennels and surgeries; non-toxic, non-irritating to any animal. Apply with spray, mop or brush.

- Kills odors arising from all waste; leaves no odor, stain or residue.
- Destroys fungi and bacterial organisms. Has phenol coefficient of 200 when diluted 2 ounces to a gallon of water.
- Cleans all surfaces, wood, metal, concrete, tile, enamel or composition, with rich live germicidal suds.

D-3 saves you money — 3 agents in one; saves you time — 3 operations in one. A gallon of D-3 gives you approximately six weeks' supply.

PRICE ONLY \$6.14 PER GALLON

(We pay the postage)

Unconditional Guarantee: Send for D-3 today. Use for ten days — if results are not satisfactory, return the unused portion. Your payment plus the return postage charges will be refunded.

BOBROW PRODUCTS COMPANY

220 S. State Street, Chicago, Ill.

(CLASSIFIED ADS — continued from p. 44)

\$15,000, terms arranged. For full information, address "Box W 13," c/o Journal of the AVMA.

Miscellaneous

WANTED TO BUY—dog cages. Must be in good condition. State size, make, and price. Address Dr. P. H. Wallace, Cynthia, Ind.

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(Continued on p. 50)



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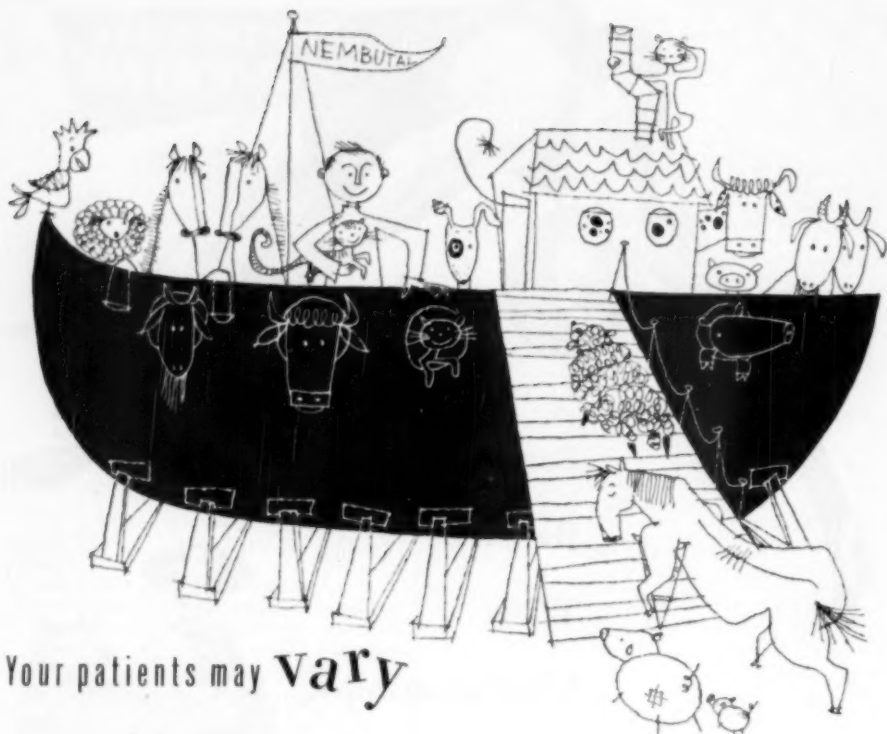
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(CLASSIFIED ADS — continued from p. 46)

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*J. Am. Vet. M.A. 101:23, 1942

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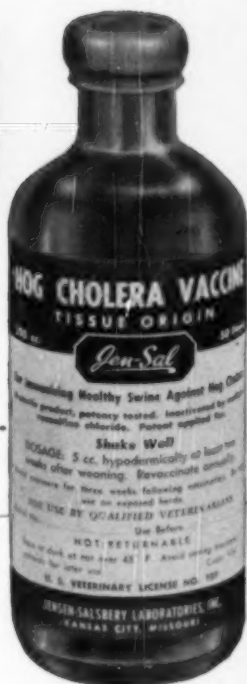
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